THE IMPACT OF EXPLANATION ON SENSE OF CONTROL AND PERCEIVED POWER RELATIONSHIP TOWARDS ONLINE ADVISORY SYSTEM

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< CERTIFICATE OF PROJECT PAPER

(PINK FORM BEFORE HARD COVER BINDING)>

Abstrak

Khidmatpenasihatanatastaliantelahwujud di mana-manadanmerupakansatukeperluandalamkehidupanmasakini.Pelbagaiagensikerajaank inimenawarkanperkhidmatansebeginisebagaisatucarauntukmenyediakanbantuantanp ahalangankepadapihak orang awamdalammemenuhikeperluanmerekakepadamaklumatdanperkhidmatan.

Projekinimenilaikesanpenyediaanperkhidmatanpenasihatanatastalian, terutamanya yang dilengkapidenganfungsipenerangan, kepada orang awam.Projekinimenggunakankaedahtinjauanuntukmengkajisecara empirikal peranan yang dimainkanolehfungsipenerangandalamalatanpenasihatanatastalian.Tiga laman web kerajaan yang mempunyai alatanpenasihatanatastalian yang diselidikiadalah*e-Filing*, *e-Quit Rent*dan*e-Assessment*; kesemuanyamenyediakanperkhidmatanberkaitantaksirancukai. 100 respondenterlibatdalamprojekberskalakecilini;

pandanganmerekadikumpulmenerusisoalselidik yang dibinadaripadaempatkonstrukutamaiaitukepuasan proses maklumat, ketelusan proses maklumat, rasa mengawaldanpersepsihubungankuasa. Fasaanalisismelibatkanpenggunaan SPSS versi 19.0 yang menyokongpelbagaiteknikanalisis data termasuk statistik deskriptif, silangdankorelasi.Hasilkajianbagi*e-Filing*menunjukkan rasa mengawaladalahlebihbaikbagikepuasan proses maklumat. Manakala*e-Quit Rent*dan*e-Assessment* pula menunjukkanpersepsihubungankuasaadalahlebihbaikbagikepuasan proses maklumat. Bagiketelusan proses maklumat*e-Filing*dan*e-Quit Rent*, rasa mengawaladalahlebihbaikberbandingpersepsihubungankuasasebaliknyabagi e-Assessment.

Rumusandaripadaprojekiniialahfungsipeneranganalatanpenasihatanatastalian menunjukkan rasa mengawal yang lebihbaikkeatashasiltaksiran orang awam.Iajugamemberipersepsihubungankuasa yang lebihbaikkepada orang awamdenganagensikerajaan yang manamerekamempunyaitanggungjawabuntukmembayarcukai.

Kata kunci :Penerangan, kepuasan proses maklumat, ketelusan proses maklumat, rasa mengawaldan persepsi hubungan kuasa.

Abstract

Online advisory services have become ubiquitous and are of the essence of life in today's living. Many government agencies these days are offering such services as a means to provide a hassle free assistance to the public in fulfilling their information and service needs. This project assesses the impact of providing online advisory services, in particular those with explanation feature, to the public. Building on insights from practice and literature, the project utilizes a survey to empirically examine the key role of explanation feature provided in online advisory tools. Three online advisory tools being examined are the e-Filing, e-Quit Rent and e-Assessment; all provide services related to tax assessment. 100 respondents involved in this small scale project; their opinions are gathered by means of questionnaire which is developed from four major constructs namely information process satisfaction, information process transparency, sense of control and perceived power relationship. The analysis phase involved the use of SPSS version 19.0 that supports various data analysis techniques including descriptive statistics, cross tabulation and correlation. The findings reveal fore-Filing shows sense of control lead to greater satisfaction among public. Whilee-Quit Rentande-Assessment isthe perceived power relationshipis better forthesatisfactionof information.Fortransparency in the processof e-filing informationande-Quit Rent,a sense ofcontrolisbetter thanthe perceived power relationshipinsteadofe-Assessment. It can be concluded from this project that the explanation in online advisory tools gives the public a better sense of control over their assessment outcome. It also gives the public a better perceived power relationship with the government agency to which they are beholden.

Keywords : Explanation, information process satisfaction, information process transparency, sense of control and perceived power relationship.

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List of Abbreviations

ELMNet	Eligibility Module on the Internet
DVA	Department of Veterans' Affairs
IPS	Information Process Satisfaction
IPT	Information Process Transparency
SOC	Sense of Control
PPR	Perceived Power Relationship
NRE	Ministry of Natural Resources and Environment
DV	Dependent variable
IV	Independent variable
IE	Internet Explorer
IRB	Inland Revenue Board
SPSS	Statistical Package for Social Science

CHAPTER 1
INTRODUCTION

Online advisory services are increasingly being adopted by modern service organizations as an effective way of interacting with their customers. Online advisory services are web-based services that assist user or public in obtaining information about their country's e-government material to self-assess their eligibility for aid and to make informed decisions on whether to proceed to the next stage of their application process. In addition, these tools offer advice, decision support and better understanding of problem situations by giving them an 'expert' answer to a problem.

Online advisory services can address a wide range of client needs and are expected to create benefits for both the organization and its customer (Li, 2011). According to Dayal and Johnson (2000), online advisory systems could provide benefits to the citizens, including increased transparency of the decision making process, a greater sense of control and more positive perceptions and power situation. This claim was evidenced in the success of Eligibility Module on the Internet(ELMNet), which has improvedAustralianDepartment of Veterans' Affairs(DVA) productivity up to 80% the quality and consistency of its primary decisions and its customer satisfaction. In the context of e-government, an effective online advisory tool that satisfies citizen's self-assessment needs on a government website can be seen as a reflection of the government 'sincerity' in delivering services, thus promoting a more democratic image of the government (Li &Gregor, 2011).

Malaysia is one of the many countries which have been seriously engaged in establishing citizen-centric online services via e-government or e-state government portals. The goal is to improve the convenience, accessibility, expediency, openness and quality of interactions between government agencies and citizens as well as businesses. It is also to improve information flow and processes within government agencies, leading to improve in speed and quality of policy development, coordination and enforcement (MAIT, 2008; MAMPU, 2009; Azizan&Fazli, 2010; Alias *et al*., 2011; Hana, 2011). Examples of such services available on the e-

government and state government portals are e-SILA, myGovernment portal, e-Consent, e-Local Government or e-PBT, Pensions Online Workflow Environment (POWER), e-*Kehakiman*, e-Filing (IRB) and Custom Information System (Azizan&Fazli, 2010; Alias *et al*., 2011).

Most of the services listed above are equipped with at least some means of advices (or explanation). This project focuses only on three services, i.e. e-Filing, e-Quit Rent and e-Assessment. The e-Filing can be considered as a major implementation of online advisory services, and is used by the majority of the tax payers to complete their tax assessment every year. Three types of online explanation are used in e-Filing, i.e. (1) help windows, (2) example stated next to the fields the tax payers need to fill in and (3) the explanation note (in PDF form). Figures 1.1 to 1.3 below illustrate each of these forms respectively.

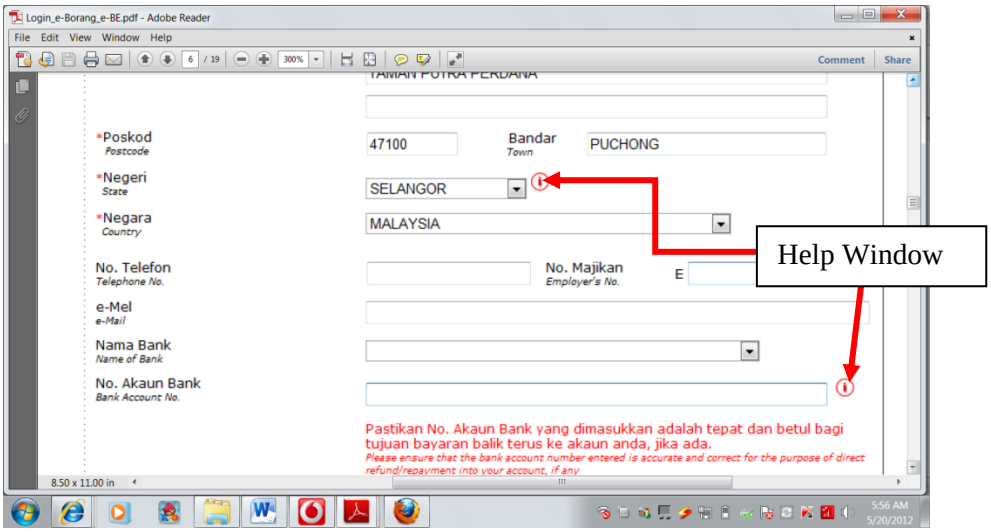

Figure 1.1: A screen shot of help window explanation (type 1)

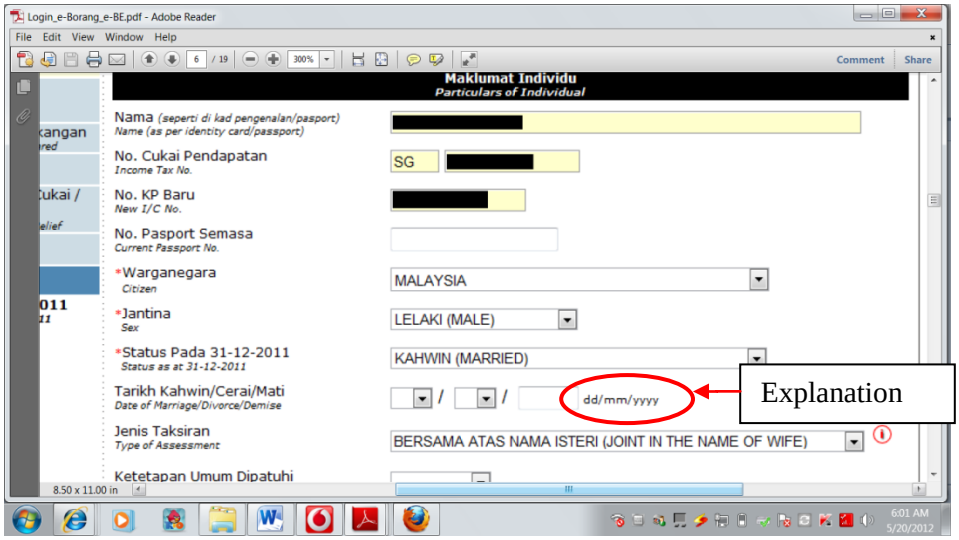

Figure 1.2: A screen shot of explanation stated next to the fields (type 2)

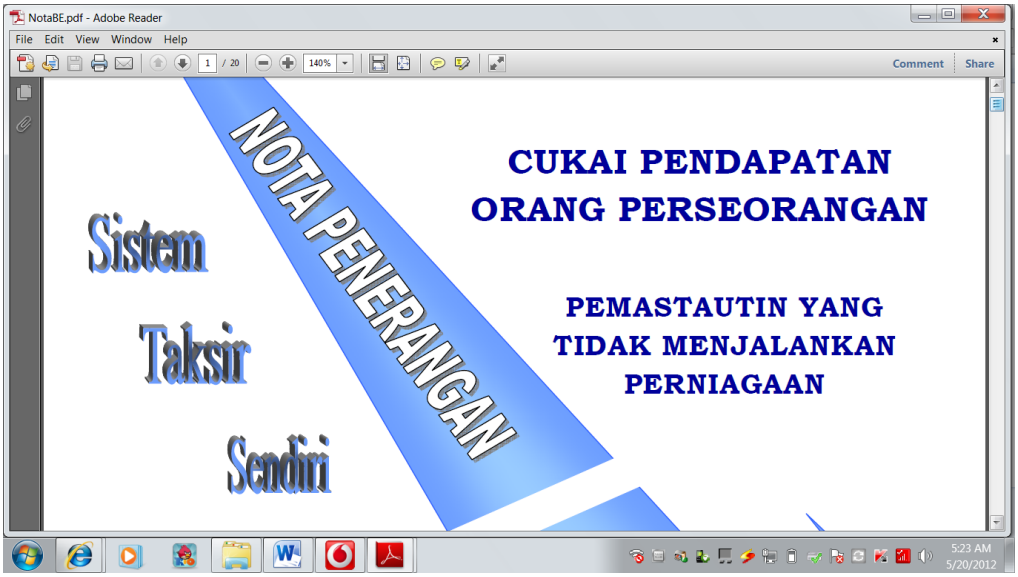

Figure 1.3: A screen shot of explanation note (type 3)

While the e-Filing is for income related tax and used by the majority of the tax payers who obtain income within Malaysia, the e-Quit Rent is only for the local community of a particular state who own the land within the state. e-Quit Rent service is provided by individual state government and is actually one of the modules of the e-*Tanah* service. Quit rent is a form of tax imposed every year on owners of all alienated land. The amount of quit rent varies from state to state, as well as within

state due to locality and category of land use, whether it is for agricultural, building, industrial or other purposes. The rates are also differing depending on whether the land is used for commercial or residential and also whether the land is located in rural or urban area. Thus, it is important to ensure that quit rent is assessed correctly. It is also important for members of the public and the business community to understand they have an obligation to settle their land rent promptly. To date, all state governments offer online quit rent service in which the land owners can check the amount of tax they are required to pay. The advice, or explanation, provided by such service, however, is very limited. Figure 1.4 below shows an example of a very little explanation provided on the website of the Land and Mines Office of Kedah to the user of its quit rent service.

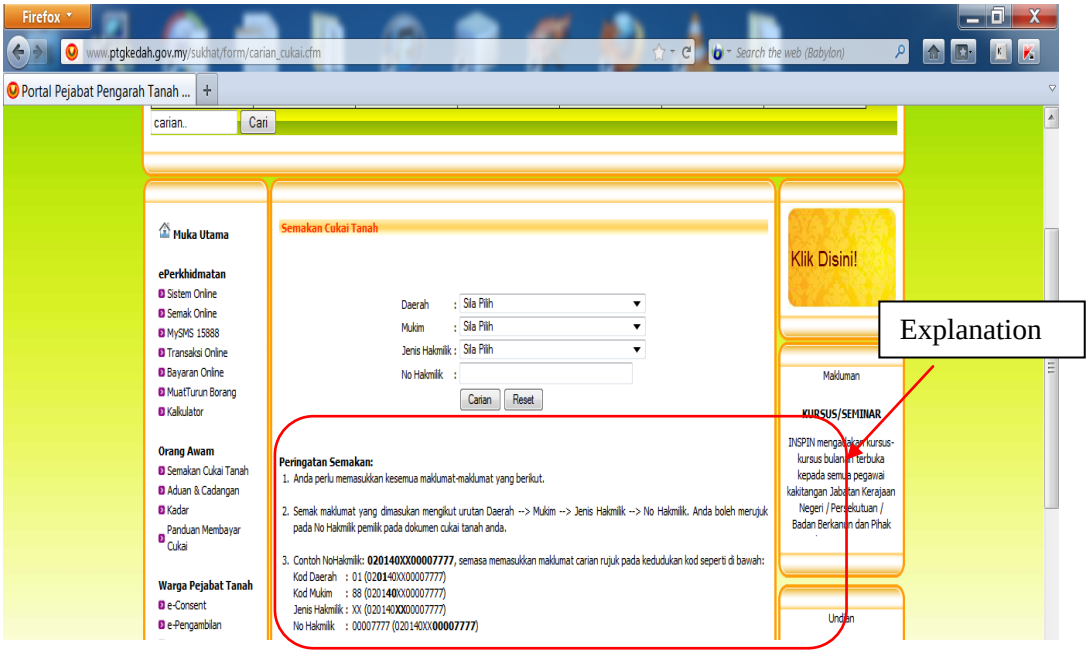

Figure 1.4: A screen shot of e-Quit Rent

The third service is an e-Assessment, which is a tax generated twice a year by the local councilwhere the property is located. Assessment tax is collected by the local authorities for the 'provision of services to the residents'. The amount and classification of properties varies from state to state and within the state. In most states the amount of tax a house owner pays is calculated on the annual value of the property; the annual value of the property is the total value of rents if the house is

rented out in the open market. Figure 1.5 shows the explanation provided in e-Assessment system.

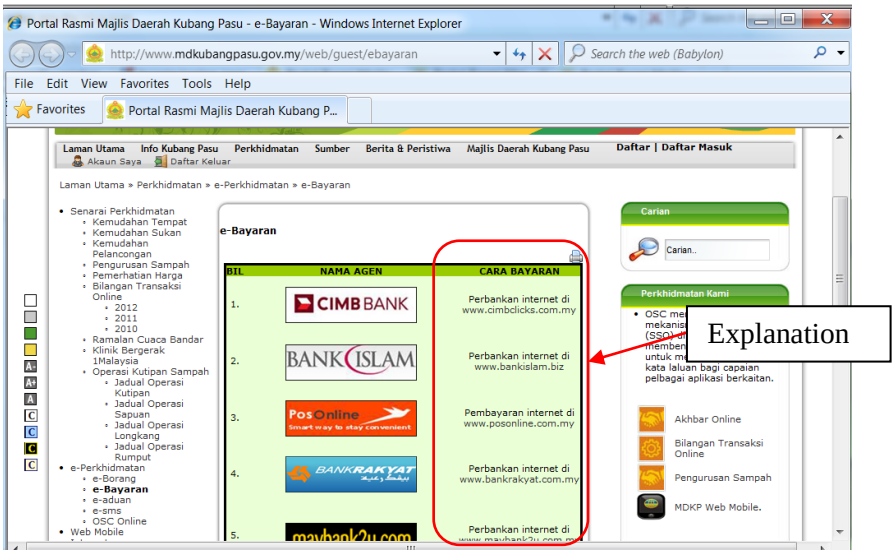

Figure 1.5: A screen shot of e-Assessment

One of the compelling benefits that effective online advisory systems could bring to the public is a sense of control over their destiny (Dayal& Johnson, 2000). This is because all the questions can be explained fully and the consequences of the information being entered become immediately apparent through online decision aid. Public users are satisfied with the timely and accurate feedback to them as a result of using such tools. Wanninger (1998) give an example of how one organization benefits from online advice giving system; the system, one that assists customers to configure their orders, has improved order accuracy from 80% to over 95%. At the same time, it also improved customer satisfaction and reduced expenses substantially.

Research into online marketing behavior showed that satisfactory and transparent site features demonstrated online consumers enjoying high levels of control and convenience (Koufaris, 2002). Likewise, on government portals, the transparent and satisfactory advisory process that is brought about by online advisory system increases the predictability of the assessment outcomes, ensures timely and relevant feedback, and expected to be positively related to sense of control. Studies on online advisory tools on government websites showed that explanations boosted the value

of online advisory tools, increasing users' satisfaction with the self-assessment process (Li &Gregor, 2010) and improve ease of use (Cheskin, 1999; Olson & Olson, 2000; Egger, 2000; Fogg*et al.*, 2001).

1.1 Problem statement

Despite the increasing adoption of online advisory services by government agencies and their importance, an understanding of the value of such services is limited, particularly in the e-government context. Their effectiveness is still in doubt. The value of having online explanation on government portals for public use has not been systematically examined, nor has the impact of such services on users (Li &Gregor, 2011).

1.2 Research question

This project aims to address the following research question:
RQ1: How does the online advisory system with explanation affect users?

1.3 Objectives

The main objective of this project is to evaluate the impact of providing online advisory systems with explanation such as those provided in e-Filing, e-Quit Rent and e-Assessment systems. This objective is supported by the following specific objectives:

i) To evaluate whether sense of control (SOC) and perceived power relationship (PPR) leads to greater satisfaction among the public.

ii) To evaluate whether sense of control (SOC) and perceived power relationship (PPR) leads to greater transparency among the public.

1.4 Scope of Study

This project focuses on three online services namely e-Filing, e-Quit Rent and e-Assessment system; all provide services related to tax assessment where people are obligated to pay on yearly or half-yearly basis. Public who use these systems is provided with some means of explanation which are of concern of this project.Due to the time constraint, the respondents were chosen among the tax payers situated in Alor Setar and Universiti Utara Malaysia only.

1.5 Significance of Project

This project contributes significantly to evaluation of public opinion on the explanation facilities in e-Filing, e-Quit Rent and e-Assessment system. It provides insights into further attempts to improve current e-services delivery and responsiveness to citizen, which will help in generating greater public satisfaction and confidence in the government. A good online service with satisfactory and transparent explanation can foster the tax payers to pay their tax without fail. This will therefore increase government's revenue, be it the federal or state government. Studies have proved that online advisory tools with some users of government websites showed that explanations boosted the value of online advisory tools, increasing users' satisfaction with the self-assessment process (Li &Gregor, 2010) and improve ease of use (Cheskin, 1999; Olson & Olson, 2000; Egger, 2000; Fogg*et al.*, 2001).

1.6 Organization of This Report

This report is organized into five chapters. Chapter Two reviews past studies related to the topic being investigated. Chapter Three details the framework used to guide this project, as well as the survey which has been carried out. Chapter Four describes the details of the data analysis stage. Findings are discussed in Chapter Five with objectives and conclude the whole report in which the limitations are highlighted and ideas for future works are suggested.

1.7 Chapter summary

This chapter introduces an online advisory system within e-government context; in particular it focuses on the explanation provided in the e-Filing, e-Quit Rent and e-Assessment systems. The problem statement is defined; objectives are set; methods, scope and significant of the project are also explained. A survey has been conducted to examine the impact of explanation in such systems on the public, i.e. whether the sense of control (SOC) and perceived power relationship (PPR) lead to greater satisfaction and transparency.

CHAPTER 2
LITERATURE REVIEW

This chapter reviews related works in the area of online advisory system, in particular those that provide public access to government information and services. It is divided into two major sections, i.e. the online advisory system and e-government.

2.1 Online Advisory System

Online advisory systems are used to assist user or public in obtaining information about their country's e-government material, to self-assess their eligibility for aid and to make informed decisions on whether to proceed to the next stage of their application process. In addition, these tools offer advice, decision support and better understanding of problem situations by giving them an 'expert' answer to a problem. Online advisory services can address a wide range of client needs and are expected to create benefits for both the organization and its customer (Li, 2011).

Nowadays, with the rapid increase in Internet usage in household, offices and schools, the Internet has become more accessible and cheaper than ever before (Ocass&Fenech, 2003). As a consequence, online advisory services are increasingly being adopted by modern service organizations as an effective way of interacting with their customers. Among the examples are online advisory system for tax (Noga& Arnold, 2002; IRS, 2011, Berdykhanova e*t al.*, 2011), financial planning (Gao*et al.*, 2006; Dziarstek*et al.*, 2003), law (El Alfi& El Alami, 2009) and e-learning (Saade, Kira&Dogmoch, 2007). Despite their importance, however, an understanding of the value of online advisory services is limited, particularly in the e-government context (Li &Gregor, 2011).

2.1.1 Explanatory Facility in Online Advisory System

Li and Gregor (2011) emphasize that tools that have explanatory facilities can contribute to satisfaction in decision making process and transparency in decision

advice. Explanation is one of the most common phenomena, and has long become the trademark of expert system (Mao &Benbasat, 2000; Jackson, 1994). Traditionally explanations are used in expert systems to enhance the quality of interaction between user and the system. The underlying principle of giving explanation to user, in expert system, is to mimic the way human experts interact with their clients or patients which is by means of explaining why certain information is required, or how certain decision is made. In the context of online advisory system, explanations can increase the value of online advisory systems because users rely heavily on explanation features to use the system properly and to comprehend the decision processes and outcomes. When appropriately provided, explanation can improve user performance and learning outcomes and result in more positive perceptions of a system (Gregor&Benbasat, 1999).

There are three primary ways of classifying explanation: (1) by content type; (2) by presentation format and (3) by provision mechanism.

a) Explanation by content type

With regard to content, explanation that conforms to Toulmin's model of argumentation (Toulmin, 2003) is explanation that is justification-type, provides more value to users than other type of explanations such as trace and strategic explanation. To optimize the explanatory features of an online advisory system, explanation should be provided in a highly structured format that minimizes user effort to locate them; that can be easily triggered by the user in real time and hides complexities through hierarchical decomposition upon user request (Simon, 1997).

b) Explanation by presentation format

Explanation can be presented in either text-based or multimedia format. The former includes text in more readable form or natural language while the later emphasizes on the use of graphics, images or animation to enhance explanations.

c) Explanation by provision mechanism

Variation in explanation can also be achieved by changing the provision mechanism, be it user-invoked, automatic or intelligent. In user-invoked mechanism, explanations are provided at the request of user, thus they are also known as on-demand explanations. In automatic mechanism, explanations are always present and cannot be controlled by user. Intelligent explanations are not fully under user control; this normally involves building of a model of the user which is then used to tailor the explanations to the user depending on their specific needs.

Explanations serve to clarify and make something understandable, or are "declaration of the meaning of words spoken, actions and motives with a view to adjusting a misunderstanding or reconciling differences" (Macquarie Dictionary, 1981). Two different aspects of explanations can be perceived even in this short definition. First, explanations can be initiated by a provider of information, with an aim of clarifying, justifying or convincing. An explanation used in this sense may be viewed in terms of argumentation (Toulmin*et al*., 1984). Second, explanation can be initiated by a receiver of information to resolved misunderstanding of disagreement (Gilbert, 1989; Ortony& Partridge, 1987; Schank, 1986).

Since the advent of advice-giving intelligent computer systems, explanation facilities have been one of their important and valued features (Berry & Broadbent, 1987; Shortliffe, 1976; Stylianou*et al.*, 1992). Explanation, by virtue of making the performance of a system transparent to its users, are influential for user acceptance of intelligent systems and for improving users' trust in advice provided (Hayes-Roth &Jocobstein, 1994). An explanation capability is thought necessary to imitate behavior that has been found to be a characteristic of consultations with human experts (Goguen*et al.,* 1983; Kidd, 1985).

Explanation are expected to aid performance primarily because they can assist users with the understanding of unfamiliar terms and requests during data input and thus lead to greater accuracy of input. This assistance is more likely to be required by

novices than experts, since the cognitive skill acquisition shows that in early stages of knowledge acquisition, declaration knowledge of terms and procedures are incomplete. Moreover, the advantage of explanation is ithas positive outcomes such as better performance, higher user perceptions of the system and in some cases improved learning. Experts and novices have differences in the use of explanation (Mao & Ye, 1995); novices use explanations more for learning and understanding while experts use it more for verification.

2.1.2 Design of Explanatory Facility in Online Advisory System

In designing an advisory system, explanations should be made available near the text fields that request user input and where the user needs instant 'advice' to make an informed choice between several options (FEMA, 2008). Enhanced explanations should allow users to control the flow of self-assessment tasks. For example, users should be able to get relevant help immediately; they should not be directed to navigate through several web pages, which can cause them to lose sight of their objective. Users should also be able to remain on the main assessment window while browsing explanations related to a specific assessment item. This feature is important because many users of online government services state that they tend to get lost in the course of being directed to web pages and then are unable to return to the web page that addressed their original problem (FEMA, 2008).

The user-invoked explanations are used wherever necessary to complement automatic or intelligent ones. User invoked explanations prevent the user from viewing several automatic explanations on the same assessment window at the same time, which can sometimesbe overwhelming. Such design helps to reduce user's cognitive load, especially on the short-term memory. To design an effective online advisory system, it is important to optimize the content as well as the provision mechanism of the system's explanatory features. It is expected that advisory system with enhanced explanations will give rise to more favorable perceptions of the system (Holsapple&Whinston, 1996).

Having online advisory services such as decision aids on government portals can fundamentally change the power relationship between a member of the general public and the government body to which they are beholden (Dayal& Johnson, 2000). This is because when a person must come into an organization with very little knowledge of their own and present to someone who is keying information in about them behind the bureaucratic wall, the person usually perceives him/herself in a weak-end power situation. On the other hand, an effective online advisory system provides a more transparent and satisfactory decision making process, and the disclosure to the public of the decision criteria and processes make it politically difficult for a public servant to ignore or override the legitimate decisions or try to cover their mistakes on assessments. Such systems are expected to improve public's perceived power relationships with the government agency.

Self-services, such as online advisory tools, can also improve the confidence of citizens in using e-government services (Dayal& Johnson, 2000). An increase in effectiveness following the use of advisory system is also demonstrated in Turban, Aronson and Liang (2005). Appropriate use of explanations in an advisory system is shown to positively correlate with improved user perceptions of advisory system (Gregor&Benbasat, 1999). Users are more likely to evaluate the self-assessment process positively if they are given appropriate explanations.

2.2 Overview of e-Government Services

Wang *et al.* (2005) defined e-government services as "the information and services provided to the public on government websites." In general, their development was motivated by the need to improve customer satisfaction, develop strong relationships with customers and business partners, and reduce the service delivery costs. For the delivery of government services, the main strategy is to design customer-friendly websites and to increase collaboration between government agencies for sharing information about the customer (Guo&Raban, 2002).

The government can increase citizen satisfaction by properly utilizing information and communication technology, in particular, the internet. This improved channel of

communication ensures the accessibility and completeness of government information, providing service delivery in a convenient way that reduces the information gap between citizen and government and improves citizen trust in government activities. Citizen satisfaction with e-government services is related to citizen perception of online service convenience (transaction), reliability of information (transparency), and engaged electronic communication (interactivity), as mentioned in Welch, Hinnant and Moon (2004).

Providing citizens with services quickly and accurately, and achieving effectiveness in government work is the purpose of constructing e-government. The final goal of e-government is to make an opportunity for the citizen to access government with greater ease. Thus, the future direction of implementing e-government has to focus on improving customer satisfaction (Kim, HyukIm& Park, 2005). The government agencies are facing challenges in improving competitive service quality. The result of standardized measuring for customer satisfaction regarding government organization is helpful to find the weaknesses of their services and assess the direction of further improvement.

2.2.1 Online Tax Filing Services

Compared to other online service delivered by government, online tax filing is one of the most developed and widely used services. In the public sector with the move of online service, tax authorities tended to be leading edge of IT application. Careful consideration of citizens' perception and expectations is important. To make this service effective, service delivery process should be more user-friendly than those delivered by traditional channels. Since perceived quality is one of the important determinants of web success, user perception and expectations need to be identified. Compare to the other online services, tax filing system is more complicated, so it must be clear and easy to be used by ordinary tax payers (Connolly & Bannister, 2008).

The online tax filing as described above has been implemented all over the world including Malaysia in which it is particularly known as the e-Filing. The Inland

Revenue Board (IRB) of Malaysia introduced the system in 2006 with a purpose to allow taxpayers to submit their income tax details online as an alternative to the manual paper submission. Since its first introduction the system has undergone a progressive improvement with a more robust engine is promised to the users. All tax payers can now access the system via Internet Explorer (IE), Firefox and Opera browsers; an improvement in terms of flexibility if compared to previous version which only allows taxpayers to browse using the IE. A big step in the implementation of e-Filing is that it integrates tax preparation, tax filing and tax payment, which serves as a major advantage over manual procedures. With the e-Filing system, taxpayers and tax practitioners can file their income tax returns electronically via the enabling technologies, rather than through mail or physically visiting the tax offices. The IRB receives the completed tax form electronically, and the system is also equipped with automatic generation feature to acknowledge the taxpayers of receipt of their tax forms. Payment of any taxable amount can also be done electronically via e-payment services. This may eventually make the art of tax filing and tax payment easier.

The implementation of e-Filing system can be viewed as a twofold strategy of the IRB. The agency has become more effective in operational and processing tasks involving tax filing returns. The manual system limits their ability to process tax files expeditiously and subsequently causing a lot of delay in collections of income tax. In addition, given that the volume of tax payers is increasingly risen up in the country, additional manpower and time are required to screen tax returns if the data has to be manually entered into the database. e-Filing has significantly streamlined the process, improved the accuracy of the tax returns and reduced transcribing error that characterizes the manual base system. e-Filing is also implemented to better serves the interest of the tax payers by overcoming their difficulties in using paper based system while at the same time encourage voluntary compliance of the tax payers in filing their tax returns. It is convenient as it allows the tax payers to file their tax returns at anytime and from anywhere within the stipulated tax filing period (Ilyas*et al.,* 2009).

In addition, the e-Filing system may offer potential benefits to improve administrative commitments towards efficiency and quality of service delivery, but these benefits may be obstructed by tax users' unwillingness to accept and use the available electronic services for many reasons that worth to be researched. Learning from the experience of overseas tax agencies, one may say that the move to embrace an e-Filing system is not hassle free and is not well accepted by all parties in society. Thus, worldwide, tax users' resistance, under-utilization and reluctant to use the e-Filing system remains a great concern and still plagues various tax agencies who are embracing electronic tax administration systems (ETAAC, 2002).

2.2.2 Online Quit Rent Service

The online quit rent service or e-Quit Rent is part of the e-*Tanah* project which was implemented in April 2004 by the Ministry of Natural Resources and Environment (NRE) towards the modernization of Malaysian land administration. Penang was selected as a pioneer state to run this project which then spread throughout Malaysia including Kedah. Chong (2008) noted that the project can give several benefits to government such as increase the revenue collection of the state and federal governments; this enables the government to correctly plan for development of land in specific area.

2.2.3 User Acceptance of e-Government Services

Few studies have been carried out on user acceptance of the e-Filing. Despite its obvious benefits, the number of tax payers using e-Filing system is far below the expectation (Izatun, 22/4/08, The Star). There were only 448,742 users of e-Filing in Malaysia out of 6.4 million tax payers in the country. This report supports previous findings of Ramayah*et al.* (2006) which revealed that many tax payers did not use e-Filing system to file their tax returns. One major issue being highlighted in the earlier study was related to the 16-digit PIN number that a tax payer must obtain directly from the income tax office. Further challenges found include the queuing up at income office to get the PIN number as well tax payers skeptical of security and privacy of their personal data information furnished online. In the same study,

Ramayah*et al.* (2006) conclude that tax payers who are female, aged between 30 to 55 years old, married, Chinese with a bachelor or master's degree, earning more than RM 3000 n per month and working in private sector are more ready to use e-Filing. Furthermore, the study also suggested that the importance of understanding and influencing citizens' acceptance of the electronic system is critical.

Ayati*et al.* (2005) conduct an empirical study to explore the awareness and the usage of e-Filing among tax agents in northern region of Malaysia (Kedah, Perlis and Penang). They also evaluate the respondents' opinion on the benefits and barriers of using e-Filing and the results showed that the overall mean score for the respondents' opinion on the benefits of e-Filing is 43.8 compared to the barriers of e-Filing which have overall mean score 35.0. It realize the advantages of e-Filing may outweigh the disadvantages None of the above studies, however, reveal findings with respect to the impact of explanation feature of the investigated system to the public.

An observation of e-taxation system in the United States revealed significant obstacles to offering online tax services (Rocheleau& Wu, 2005). The study revealed that the percent of governments citing the issues of security which could reflect their interest in developing online transaction systems in the country. In contrast, majority of Americans are comfortable with e-filing (H.D. Vest Financial Services Inc., 2000). The acceptance of e-Filing has given rise to an increased comfort with website tax preparation and it seems that Americans are more swiftly than expected to the e-Filing system. To substantiate this point, the report has shown that over half of the tax payers say that they are very comfortable with e-Filing system. Fifty-four percent of American taxpayers (i.e. 65 million) say that they are comfortable filing their tax returns electronically; this is more than twice the number that actually e-filed their tax returns in the previous year. More importantly, an almost identical proportion also expressed the same level of comfort in receiving their refunds electronically. Not surprisingly, younger Americans in particular are more likely to e-file their tax returns and receive refunds electronically than citizens aged 65 or older who are significantly less comfortable with e-Filing system. In other words, the nation's elderly people are seem uncomfortable with receiving a refund electronically in spite of the fact that many have already been receiving direct deposit of their

Social Security payments electronically. The study also found that men are much more willing than women to use the Internet for tax preparation and e-Filing their tax returns.

In Asia, Taiwan is an example of country practicing e-government services where the citizen has been using the e-filing system for their personal income tax. However, there is a clear difference in willingness between men and women e-filers in terms of its usefulness, cost saving, and the ease of use (Jen *et al.*, 2006). In some other parts of the world, many other studies have also reported similar cases of this kind and pointed to several factors such as technology readiness of the people, perception of the public in terms of technology usefulness, ease of use, and security of their information provided online (James, 1987; Davis, 1989; Parasuraman, 2000; Parasuraman& Colby, 2001; Yurcik& Sharma, 2004). Investigation of e-tax filing system in Japan revealed citizens' concerns about the national tax data that contain sensitive personal and financial information (Chatfield, 2009). Any security breach will have negative impacts on the credibility of tax administration and public information privacy rights. Tax payers are very sensitive when they are filing their tax returns, since they need to provide a great deal of personal information. If they believe the tax authority is not opportunistic, then they will feel comfortable using this online service.

2.3 Chapter Summary

An online advisory system is becoming a popular approach for the government to deliver its services to the public. The explanation feature in online advisory system is viewed as crucial as the public rely heavily on explanation features to use the system properly and to comprehend the decision processes and outcomes. Myaim of research have been conducted on issues related to explanation facility of advisory systems which are mostly classified as expert systems, thus the focus is on the expert level advices provided by the systems. This project, however, focuses on limited advices provided in advisory systems in e-government context. The influencing factors and the status of user acceptance of such systems have been studied in the

past; very few gives serious attention to how explanations feature in such systems impacts the users.

CHAPTER 3
METHODOLOGY

A methodology is classified as a technique that is used for conducting a research (Sekaran, 2003). It is a rule for resolving a problem, with specific components such as phrases, tasks, methods, techniques and tools (Ishak& Alias, 2005). Thus, as stated in Kaplan and Maxwell (2005), it is not just a collection of methods to perform a research.

This chapter presents a project framework along with a set of hypothesis based on the theoretical foundations presented in the previous chapter. In addition, this chapter presents and discusses the methodology being employed in this project. This includes description of the data collection process as well as questionnaire design, sample of study and the last part of this chapter describes the statistical techniques used in data analysis stage.

3.1 Project Framework

As shown in Figure 3.1, a model used in this project comprises of four components namely information process satisfaction (IPS), information process transparency (IPT), sense of control (SOC) and perceived power relationship (PPR). It is an adaptation of the Online Government Advisory Service Delivery model (Li &Gregor, 2011).

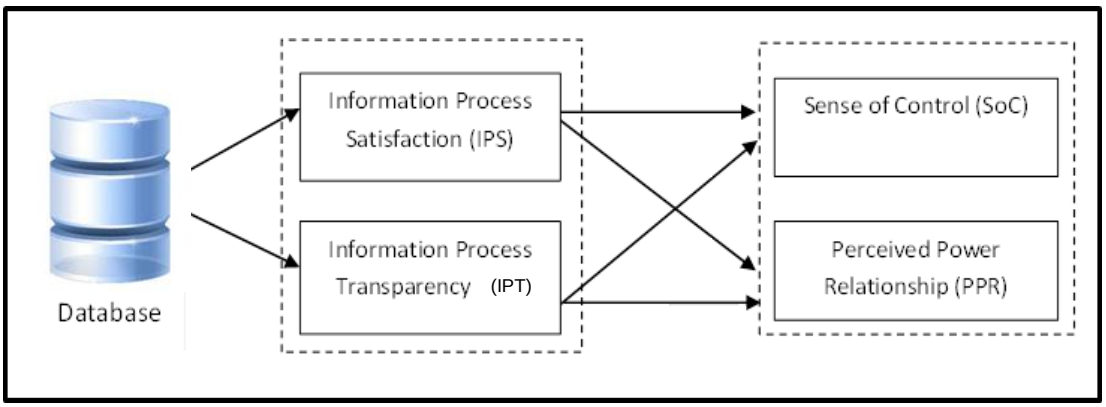

Figure 3.1: The adapted model

3.1.1 Information Process Satisfaction (IPS)

Information process satisfaction is defined as the user's subjective state of satisfaction gained from information process after using services on a government website (Pereira, 1999). Dayal and Johnson (2000) claimed that self-services, such as online advisory system can improve the confidence of citizens when they utilize e-government services. Other research has demonstrated an increase in effectiveness due to advisory system use (Turban et al., 2005). Confidence and effectiveness were regarded as key dimensions in assessing IPS (Bharati&Chaudhury, 2004). Further, appropriate use of explanations in an advisory system is shown to be positively correlated with improved user perceptions of advisory system (Gregor&Benbasat, 1999). Users are more likely to evaluate the self-assessment process positively if they are given appropriate explanations. In this project, IPS represents the overall subjective feeling following experience in using an online advisory tool with explanation, such as those provided in the e-Filing, e-Quit Rent and e-Assessment websites. Table 3.1 shows how the IPS is measured on one of these three online advisory tools, i.e. the e-Filing.

Table 3.1: Information Process Satisfaction of e-Filing

	INFORMATION PROCESS SATISFACTION (IPS)	**1**	**2**	**3**
B2.	The online explanation (help window and explanation note) provided in this e-filing system is one of the best ways to assist me to prepare my tax filing form.	**1**	**2**	**3**
B3.	The online explanation provided by e-filing system improves my productivity in preparing income tax filing form.	**1**	**2**	**3**
B4.	The online explanation provided by e-filing system makes it easier for me to complete tax filing form.	**1**	**2**	**3**
B5.	The online explanation provided by e-filing system enhances my effectiveness in preparing income tax filing form.	**1**	**2**	**3**
B6.	The online explanation provided by e-filing system is useful in preparing income tax filing form.	**1**	**2**	**3**
B7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.	**1**	**2**	**3**
B8.	I am happy with the explanation provided in this e-filing system.	**1**	**2**	**3**

3.1.2 Information Process Transparency (IPT)

Information process transparency (IPT) refers to user perceives the underlying rationale of information process as comprehensible (Braddock *et al.*, 1999). In this project, IPT refers to the explanation clearly presenting the premises to the public and explaining the reasoning, leading from the premises to a certain conclusion, so that user is given sufficient information to understand the process. Table 3.2 shows how the IPT is measured in this project, i.e. the e-Filing.

Table 3.2: Information Process Transparency of e-Filing

	INFORMATION PROCESS TRANSPARENCY (IPT)	**1**	**2**	**3**
B9.	The online explanation makes it easy to understand how the tax rules are applied to my situation.	**1**	**2**	**3**
B10.	The online explanation on how my assessment is done is clear.	**1**	**2**	**3**
B11.	The online explanation on how my assessment is done is easy to understand.	**1**	**2**	**3**
B12.	The online explanation contains terms that are confusing me.	**1**	**2**	**3**
B13.	The explanation for my assessment is organized so they are easy to follow.	**1**	**2**	**3**
B14.	The advices given by the online explanation are often too long to be understood.	**1**	**2**	**3**

3.1.3 Sense of Control (SOC)

Sense of control (SOC) refers to the degree to which an individual believes that his or her voluntary activity can change an outcome's likelihood (Perlmutter& Monty, 1979), it can vary with situations and actions (Koufaris, 2002). A SOC over own destiny is critical for the public that uses online government services, especially during self-assessment. Anxiety can be reduced when questions are explained fully, and consequences of the information entered into the system become apparent. Prior literature as mentioned by (Koufaris, 2002) suggests that satisfactory and transparent website features enable online visitors to enjoy high level of control and convenience. Table 3.3 shows how this component is measured in this project, i.e. the e-Filing.

Table 3.3: Sense of control of e-Filing

	SENSE OF CONTROL (SOC)	1	2	3
B15.	I felt calm when using e-filing system.	**1**	**2**	**3**
B16.	I felt confused when using e-filing system.	**1**	**2**	**3**
B17.	I felt frustrated when using e-filing system.	**1**	**2**	**3**
B18.	I felt in control when using e-filing system.	**1**	**2**	**3**

3.1.4 Perceived Power Relationship (PPR)

Perceived power relationship (PPR) refers to the individual's perception of his or her power situation relative to the government body that has the authority to make a decision related to his or her situation. The construct of PPR depends on a comparison of the power of the government agency and a member of the public. In this context, the basis of power refers to

i. having access to key information of concern
ii. having the capacity to assess how different policy alternatives impact one's own interests.
iii. being able to use information resources to influence policy and political agenda.

Table 3.4 shows how PPR is measured in this project, i.e. e-Filing.

Table 3.4: Perceived Power Relationship of e-Filing

	PERCEIVED POWER RELATIONSHIP (PPR)	1	2	3
B19.	In tax assessment, the agency expects the public to obey its assessment.	**1**	**2**	**3**
B20.	In tax assessment, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes.	**1**	**2**	**3**
B21.	It is difficult for public to express disagreements with the government on assessment-related decision.	**1**	**2**	**3**
B22.	It is difficult for public to seek recourse from the government agency on assessment-related decision.	**1**	**2**	**3**
B23.	One a decision is made by the agency, it is hard for public to question it.	**1**	**2**	**3**

3.2 Project Design

The most significant phase of this project is the design phase. This phase should be given serious attention to make sure that the project can be carried out without any error. Design includes the best method for reviewing, collecting, measuring and analysing data. Survey is used in this project as it fits well with the nature of this project; survey design is a suitable means for assessing opinions, socials facts, beliefs, attitudes and trends (Kerlinger, 1973). Survey is also a good way for measuring relationship between variables (Punch, 2003). The flow of activities carried out in this project is as illustrated in Figure 3.2 below.

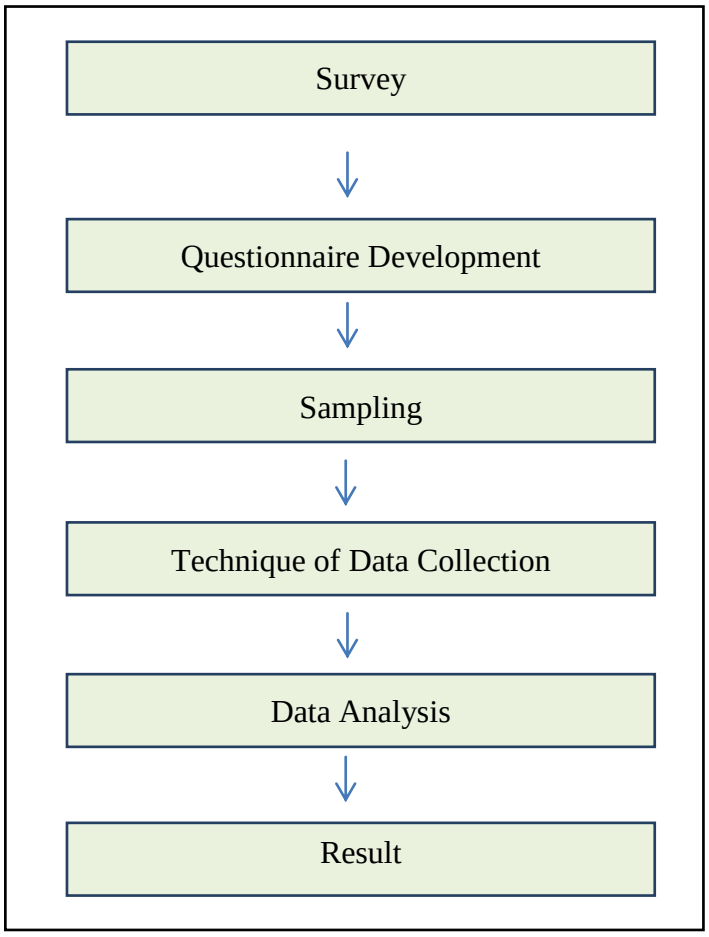

Figure 3.2: Flow of activities

3.2.1 Survey

Survey is used in this project to gather public opinions on the e-Filing, e-Quit Rent and e-Assessment systems. It is an appropriate quantitative research strategy to resolve the interaction of variables described earlier. The strategy has long been used to collect information from sample of people using questionnaire or interview (Hair *et al.*, 2006). Zikmund (2003) acknowledged survey as a technique of data collection based on communication with a representative sample of individuals that provides quick, cheap, efficient and accurate means of assessing information about the population.

3.2.2 Questionnaire Development

The variables in this questionnaire are categorized into the groups according to the framework of this research. The variables are evaluated in some ways that will be able to test the hypotheses and in order to reduce the scale bias. Dependent and independent variables are measured using the Likert Scale of three normal points ranging from 1 for 'disagree', 2 for 'neither' and 3 'agree'. According to Mummendey (2003), participants choose the middle option for multiple reasons, i.e. either they do indeed have a neutral attitude, do not know how to answer the question, think that the question is irrelevant, refuse to answer or want to express their dislike of the question (protest answer).

An extensive review of previous work is conducted to ensure that comprehensive list of items is included in the questionnaire. Only items which have been validated in previous research were chosen to ensure reliability and credibility of the construct used. All questions are related to the impact of explanation provided in e-Filing, e-Quit Rent and e-Assessment on public. The questionnaire consists of two parts. The first part enquires about the user background such gender, age, marriage status, highest education, job, time of using computer per week and household income which were then used to generate respondents profile data. The second part focuses on the impact of explanation provided in e-Filing, e-Quit Rent and e-Assessment. A copy of a questionnaire used in this project is presented in Appendix A.

3.2.3 Data Collection

Data collection occupied the process of organizing, distributing and gathering the questionnaires. Questionnaires were distributed in both hardcopy and softcopy forms. This is done in two full days in which the researcher has made herself around to make sure the hardcopy questionnaires are filled in and returned. The softcopy questionnaires were only circulated to a few friends who are currently in employment and have an experience using at least one of the investigated online services.

a) Sampling

Sampling means selecting a suitable sample that representative part of population for the purpose of determining parameters of the whole population. In other word, a sample is a subset from larger population and it is used when it is impossible to collect data from every element in the population. Sampling is used in this project mainly due to the cost and time constraint. A sample population for this project is represented by a group of individuals from Universiti Utara Malaysia and AlorSetar. While all respondents have been using e-Filing for at least once, very few have had experience with e-Quit Rent and e-Assessment. The population entailed in this study comprises of 100 people and 100% response rate, as illustrated in Figure 3.3 below.

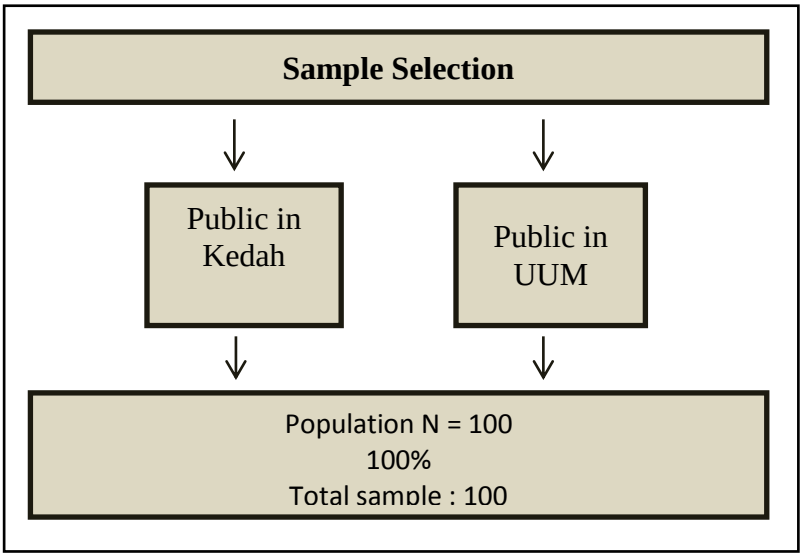

Figure 3.3: Sampling Selection

3.2.4 Data Analysis

Data analysis is done by using Statistical Package for Social Science(SPSS) version 19.0 to ensure that the related issues was tested and examined in comprehensive manner. Descriptive statistic is used in the analysis of the respondents' demographic data; the technique consists of the collection, organization, summarization and presentation of data (Bluman, 2009). Profile of the respondents in frequency distribution is then presented in graphical form. Chapter 4 of this report presents this information in bar graph and pie chart.

3.3 Chapter Summary

This study employs a survey to investigate impact of the online explanation provided in e-Filing, e-Quit Rent and e-Assessment services. A sample population of this study consists of individuals in Universiti Utara Malaysia and AlorSetar. The analysis of the collected data is done using a standard data analysis tool, SPSS version 19.

CHAPTER 4
ANALYSIS AND FINDINGS

This chapter presents the analysis of the data collected from 100 respondents and the findings. The techniques used in this analysis include descriptive statistics, chi-square test and logic correlation analysis test using SPSS 19.0.

4.1 Respondents' profile

Descriptive analysis is used to create demography factors such as gender, age, marital status, job, time of using computer, household income per month as well as experience in using e-Filing, e-Quit Rent and e-Assessment system.

4.1.1 Demographics

Table 4.1 shows the distribution of respondents which consists of 53 individuals based in AlorSetar and 47 in UUM.

Table 4.1: Descriptive Statistic for Location of Respondents

Location	Frequency	Percentage
AlorSetar	53	53%
UUM	47	47%
	100	100%

Figure 4.1 shows that 53% of the respondents are male. The females made up the remaining 47%.

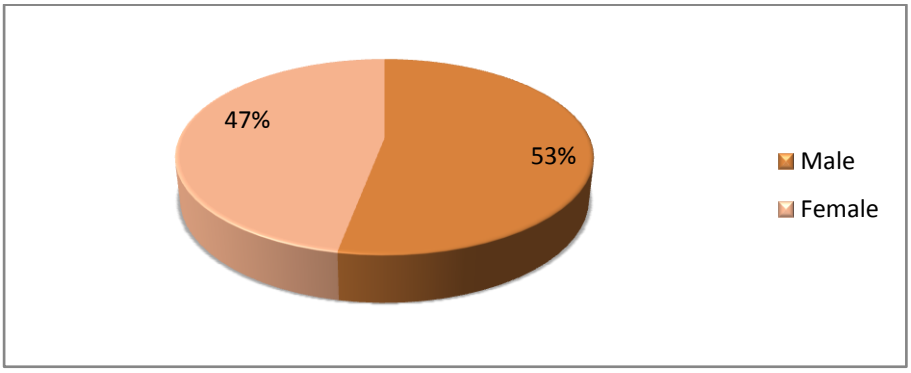

Figure 4.1: The Distribution of Respondents based on Gender

The age of respondents is mostly in the range of 30-39 years in which they represent 71% of the total respondents. The percentage of respondents whose age is in the range of 40-49 years is 16%; only 8% of the respondents are in the range of 25-29 years. The remaining 5% is represented by those at the age more than 50 years. The distribution of respondents according to age is as shown in Figure 4.2.

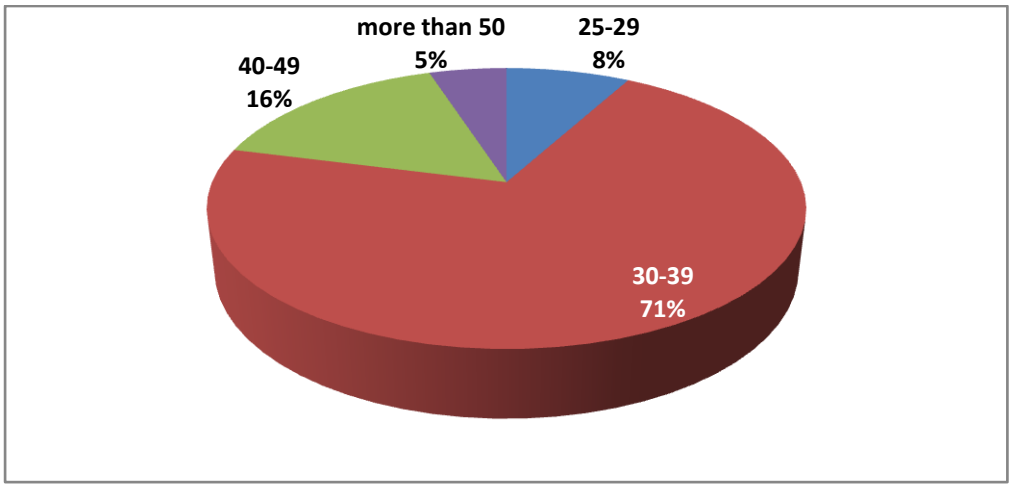

Figure 4.2: TheDistribution of Respondents based on Age

Figure 4.3 shows that most of respondents are married (91%), followed by single (6%) and others (3%).

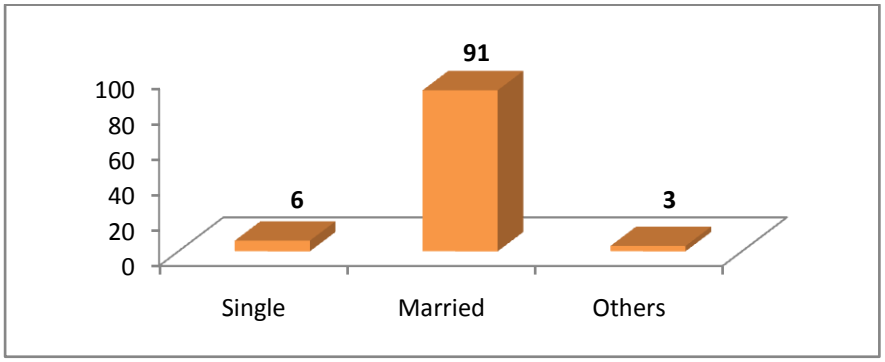

Figure 4.3: The Distribution of Respondents based on Marital Status

The highest education level for most of the respondents is a Bachelor degree (62%). 26% of them are Master or PHD holders, 7% hold SijilPelajaran Malaysia (SPM) and another 5% hold the other types of certificates. This distribution is shown in Figure 4.4.

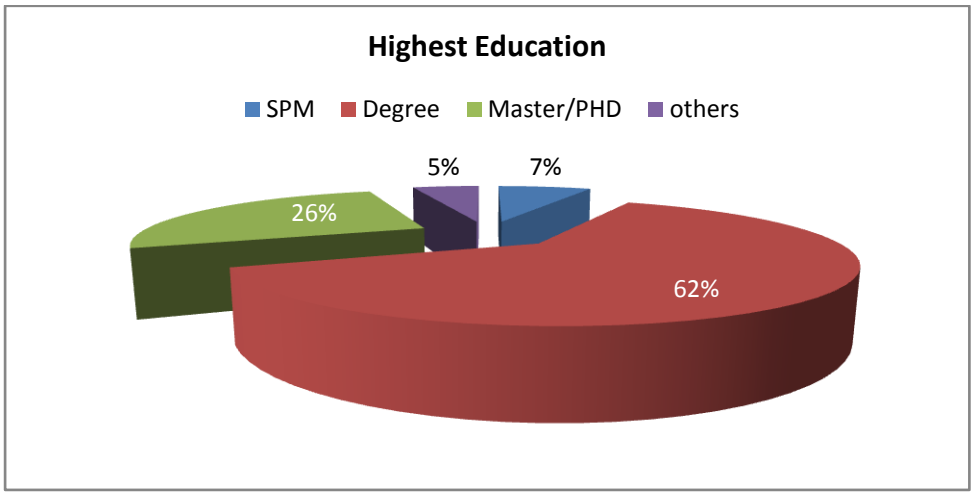

Figure 4.4: The Distribution of Respondents based on Education Level

Most respondents spend more than 28 hours per week for using computer (47%), followed by 31% who spent between 14 to 28 hours. The remaining 22% respondents use computer less than 14 hours per week as can be seen in Figure 4.5.

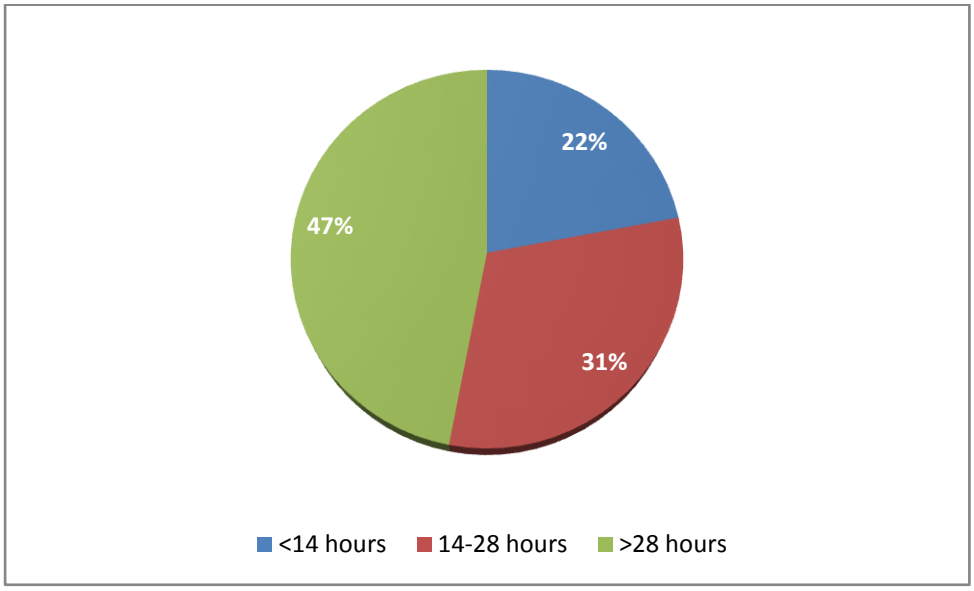

Figure 4.5: The Distribution of Respondents based on Computer Usage Time

Figure 4.6 exhibits that most of the respondents are professionals (academic) (53%); this is in fact a result from the choice of respondents at the earlier stage of project design. 41% of the respondents are professionals (non-academic) and the other 6% is represented by support staffs.

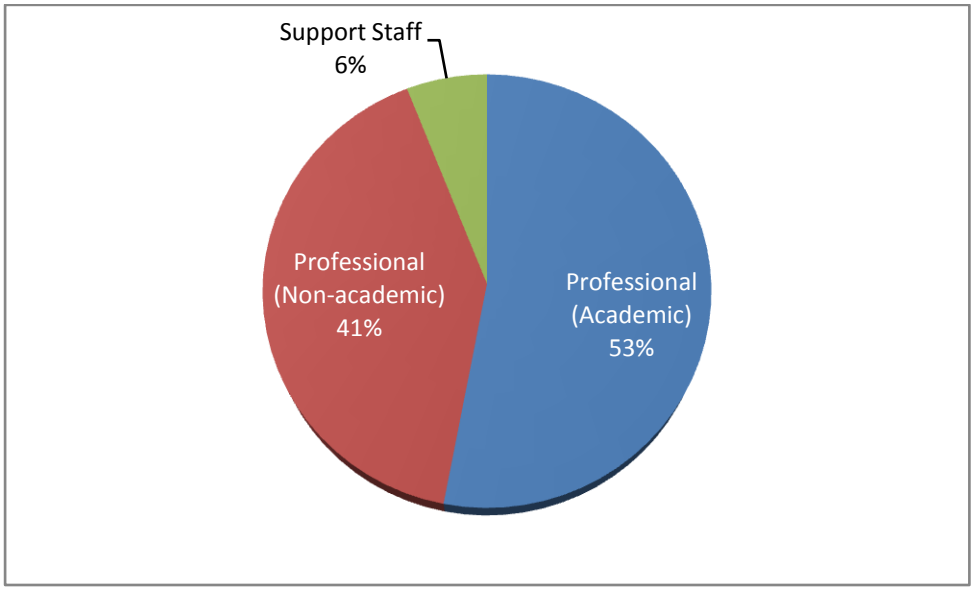

Figure 4.6: The Distribution of Respondents based on Category of Job

The household income per month of the 88 respondents is in a range between RM3001 to RM10000. 11 respondents obtain more than RM10000 per month and only 1 respondent have income less than RM3000 per month. Figure 4.7 shows this distribution.

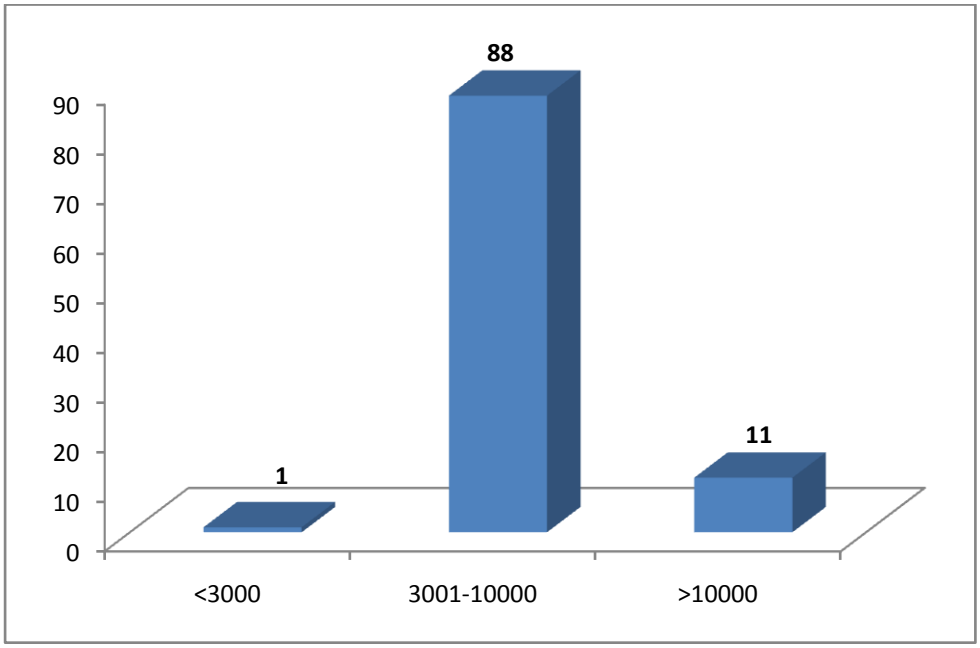

Figure 4.7: The Distribution of Respondents based on Household Income

4.1.2 Experience with Online Tax System

Figure 4.8 shows 100% respondents have experience with e-Filing system, 27% have experience with e-Quit Rent and only 17% have experience with e-Assessment system.

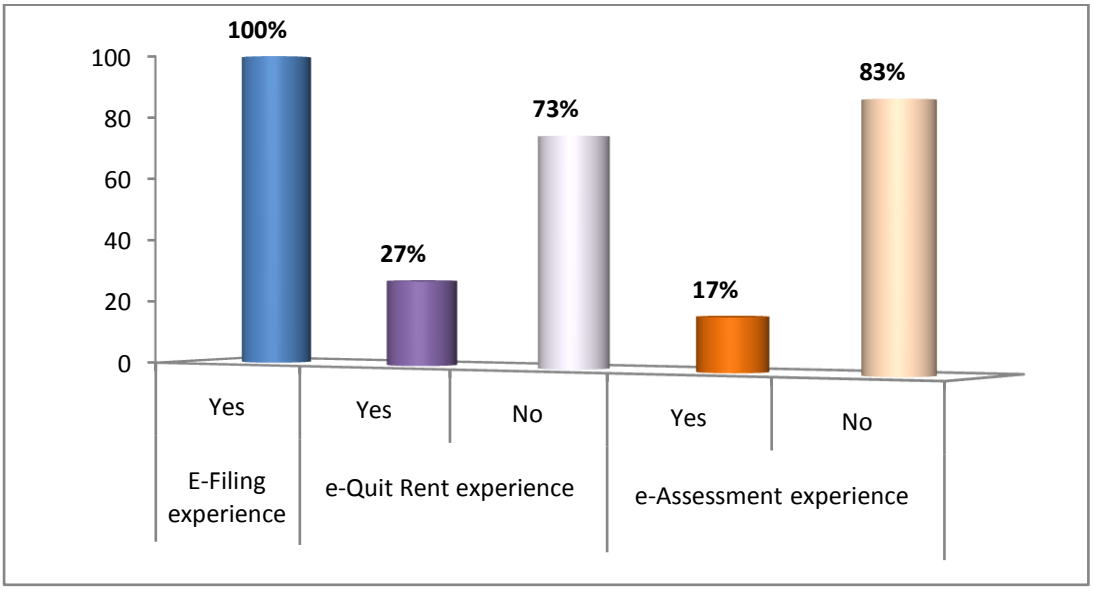

Figure 4.8: The Distribution of Respondents based on Experience with e-Filing, e-Quit Rent and e-Assessment

The information presented above is summarized in Table 4.2 on the next page.

4.2 Descriptive statistics analysis

Descriptive statistics are method used to organize, display, describe and explain a set of data with the use of tables, graphs, and summary measures (Nourusis, 1999; Johnson &Cristensen, 2000). Two types of measures used in descriptive statistics are (1) measures of central tendency and (2) measures of dispersion or variability.

Measures of central tendency are numerical values which can best represent a set of data for variable. The three measurements used are mode, median and mean. Mode is the most frequently occurred in a data set. Median is the middle value of data set which is arranged hierarchically from the smallest to the largest value or vice versa and mean is the average value of data set. On the other hand, measures of dispersion (variability) are numerical index used to give information about dispersion or variability of data in a data set. These measures include range, variance and standard deviation. Range is the different between the largest observed value and smallest value in a data set. Variance is the average of the deviation from the mean (in

squared unit) and lastly standard deviation is the square root of variance. In this study, mean and standard deviation were chosen to be implemented in a data set.

Table 4.2: Summary of the Respondents Profile

No	Variables		Freq	%
1	Gender:	Male Female	53 47	53 47
2	Age:	25 – 29 years 30 – 39 years 40 – 49 years Above 50 years	8 71 16 5	8 71 16 5
3	Marriage Status:	Single Married Others	6 91 3	6 91 3
4	Highest Education:	SPM Degree Master/PhD Others	7 62 26 5	7 62 26 5
5	Job:	Professional (Academic) Professional (Non-academic) Support staff	53 41 6	53 41 6
6	Computer usage time:	< 14 hours 15–28 hours > 28 hours	22 31 47	22 31 47
7	Household income per month:	< RM3000 RM3000-10000 > RM10000	1 88 11	1 88 11
8	Experience with e-Filing:	Yes No	100 0	100 0
9	Experience with e-Quit Rent:	Yes No	27 73	27 73
10	Experience with e-Assessment:	Yes No	17 83	17 83

4.2.1 Descriptive statistics analysis for e-Filing

Table 4.3 shows that for B2, B3, B4, B5, B6, B7 and B8 which are used to measure IPS, the mean is about 3 out of 3 scales. This indicates that most tax payers agree that online explanation provided in e-Filing system enhances their effectiveness and useful in preparing income tax filing form (2.98) with standard deviation of 0.141.

Table 4.3: Statistics for IPS of e-Filing

No	Items	Mean	Std. Dev
B2.	The online explanation (help window and explanation note) provided in this e-filing system is one of the best ways to assist me to prepare my tax filing form.	2.91	0.379
B3.	The online explanation provided by e-filing system improves my productivity in preparing income tax filing form.	2.87	0.367
B4.	The online explanation provided by e-filing system makes it easier for me to complete tax filing form.	2.91	0.351
B5.	The online explanation provided by e-filing system enhances my effectiveness in preparing income tax filing form.	2.95	0.261
B6.	The online explanation provided by e-filing system is useful in preparing income tax filing form.	2.98	0.141
B7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.	2.93	0.256
B8.	I am happy with the explanation provided in this e-filing system.	2.76	0.429

For all the items used to measure IPT, i.e. B9 to B14, the highest mean is about 2.70 (Table 4.4). This indicates that most of respondents found that online explanation makes it easy to understand how the tax rules are applied to their situation and how their assessment is done is easy to understand.

Table 4.4: Statistics for IPT of e-Filing

No	Items	Mean	Std. Dev
B9.	The online explanation makes it easy to understand how the tax rules are applied to my situation.	2.70	0.611
B10.	The online explanation on how my assessment is done is clear.	2.66	0.639
B11.	The online explanation on how my assessment is done is easy to understand.	2.70	0.628
B12.	The online explanation contains terms that are confusing me.	2.02	0.853
B13.	The explanation for my assessment is organized so they are easy to follow.	2.69	0.631
B14.	The advices given by the online explanation are often too long to be understood.	1.71	0.832

Table 4.5 shows that for all items used to measure SOC, i.e. B15 to B18, the highest mean is about 2.61. This indicates that most respondents felt calm when using e-

Filing system. In addition, items B10 and B11 show that the mean are less than 1.5 which indicates that they are not confused and frustrated when using e-Filing system.

Table 4.5: Statistics for SOC of e-Filing

No	Items	Mean	Std. Dev
B9.	I felt calm when using e-filing system.	2.46	0.834
B10.	I felt confused when using e-filing system.	1.40	0.765
B11.	I felt frustrated when using e-filing system.	1.38	0.722
B12.	I felt in control when using e-filing system.	2.61	0.723

The highest mean for all items used to measure PPR (B19 to B23) is 2.68, as shown in Table 4.6. This shows that respondents agree that in tax assessment, the agency expects the public to obey its assessment and the agency strives to assist the public to understand the reasoning processes behind assessment outcomes.

Table 4.6: Statistics for PPR of e-Filing

No	Items	Mean	Std. Dev
B19.	In tax assessment, the agency expects the public to obey its assessment.	2.68	0.649
B20.	In tax assessment, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes.	2.68	0.665
B21.	It is difficult for public to express disagreements with the government on assessment-related decision.	2.16	0.861
B22.	It is difficult for public to seek recourse from the government agency on assessment-related decision.	1.93	0.891
B23.	Once a decision is made by the agency, it is hard for public to question it.	2.23	0.863

4.2.2 Descriptive statistics analysis for e-Quit Rent

Table4.7 shows items of IPS (C2 to C8) for e-Quit Rent system. The highest mean is 3.00, indicating that respondents are very likely to recommend a system equipped with similar online explanation to their friends and colleagues.

Table 4.7: Statistics for IPS of e-Quit Rent

No	Items	Mean	Std. Dev
C2.	The online explanation (manual) provided in this e-Quit Rent system is one of the best ways to assist me to pay my quit rent.	2.80	0.424
C3.	The online explanation provided by quit rent system improves my productivity to check and pay my quit rent.	2.81	0.396
C4.	The online explanation provided by quit rent system makes it easier for me to check and pay my quit rent.	2.78	0.641
C5.	The online explanation provided by quit rent system enhances my effectiveness to check and pay my quit rent.	2.89	0.320
C6.	The online explanation provided by quit rent system is useful in preparing my quit rent assessment.	2.70	0.7241
C7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.	3.00	0.000
C8.	I am happy with the explanation provided in this e-Quit Rent system.	2.89	0.320

Table 4.8 shows the IPT (C9 to C14) for e-Quit Rent system. The highest mean is 2.74 for C10 and C13 with standard deviation of 0.656 and 0.594 respectively.

Table 4.8: Statistics for IPT of e-Quit Rent

No	Items	Mean	Std. Dev
C9.	The online explanation makes it easy to understand how the quit rent rules are applied to my situation.	2.48	0.802
C10.	The online explanation on how my assessment is done is clear.	2.74	0.656
C11.	The online explanation on how my assessment is done is easy to understand.	2.70	0.609
C12.	The online explanation contains terms that are confusing me.	2.04	0.940
C13.	The explanation for my assessment is organized so they are easy to follow.	2.74	0.594
C14.	The advices given by the online explanation are often too long to be understood.	2.15	0.907

For all items of SOC (C15 to C18) for e-Quit Rent system, the highest mean is about 2.63, indicating that most respondents felt in control when using e-Quit Rent system. Most respondents also felt calm when using e-Quit Rent system, with mean value of 2.56. For item C16, the mean is less than 1.5 which indicates that respondents are not confused when using e-Filing system. This is shown in Table 4.9 below.

Table 4.9: Statistics for SOC of e-Quit Rent

No	Items	Mean	Std. Dev
C15.	I felt calm when using e-Quit Rent system.	2.56	0.801
C16.	I felt confused when using e-Quit Rent system.	1.48	0.802
C17.	I felt frustrated when using e-Quit Rent system.	1.96	0.980
C18.	I felt in control when using e-Quit Rent system.	2.63	0.742

The highest mean for all items of PPR (C19 to C23) for e-Quit Rent system is 2.70 with standard deviation of 0.797. This shows that respondents agree that in quit rent assessment, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes.

Table 4.10: Statistics for PPR of e-Quit Rent

No	Items	Mean	Std. Dev
C19.	In quit rent assessment, the agency expects the public to obey its assessment.	2.26	0.984
C20.	In quit rent assessment, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes.	2.70	0.669
C21.	It is difficult for public to express disagreements with the government on assessment-related decision.	2.41	0.797
C22.	It is difficult for public to seek recourse from the government agency on assessment-related decision.	2.11	0.934
C23.	Once a decision is made by the agency, it is hard for public to question it.	2.19	0.921

4.2.3 Descriptive statistics analysis for e-Assessment

Table4.11 shows the IPS (D2 to D8) of e-Assessment system. The highest mean is 3.00; this indicates that respondents agree that the online explanation provided in e-Assessment makes it easier to them, enhances their effectiveness to check and pay their assessment tax. In addition, they also agree that online explanation is useful in preparing their assessment, enhances their effectiveness to check and pay the tax and they are likely to recommend a system with similar online explanation to their friends and colleagues.

Table 4.11: Statistics for IPS of e-Assessment

No	Items	Mean	Std. Dev
D2.	The online explanation (manual) provided in this e-Assessment system is one of the best ways to assist me to pay my assessment tax.	2.88	0.332
D3.	The online explanation provided by e-Assessment system improves my productivity to check and pay my assessment tax.	2.88	0.332
D4.	The online explanation provided by e-Assessment system makes it easier for me to check and pay my assessment tax.	3.00	0.000
D5.	The online explanation provided by e-Assessment system enhances my effectiveness to check and pay my assessment tax.	3.00	0.000
D6.	The online explanation provided by e-Assessment system is useful in preparing my assessment tax.	3.00	0.000
D7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.	3.00	0.000
D8.	I am happy with the explanation provided in this e-Assessment system.	2.76	0.437

Table 4.12 shows the IPT (D9 to D14) for e-Assessment system. The highest mean is 2.65 for items D9 with standard deviation of 0.493.

Table 4.12: Statistics for IPT of e-Assessment

No	Items	Mean	Std. Dev
D9.	The online explanation makes it easy to understand how the assessment tax rules are applied to my situation.	2.65	0.493
D10.	The online explanation on how my assessment is done is clear.	2.53	0.717
D11.	The online explanation on how my assessment is done is easy to understand.	2.29	0.920
D12.	The online explanation contains terms that are confusing me.	2.24	0.970
D13.	The explanation for my assessment is organized so they are easy to follow.	2.47	0.874
D14.	The advices given by the online explanation are often too long to be understood.	2.24	0.970

For all items of SOC (D15 to D18) for e-Assessment system, the highest mean is about 2.88 which indicate that most respondents felt in control when using e-Assessment system. Most respondents also felt calm when using e-Assessment system, with mean value of 2.41, as shown in Table 4.13.

Table 4.13: Statistics for SOC of e-Assessment

No	Items	Mean	Std. Dev
D15.	I felt calm when using e-Assessment system.	2.41	0.870
D16.	I felt confused when using e-Assessment system.	1.29	0.588
D17.	I felt frustrated when using e-Assessment system.	1.65	0.931
D18.	I felt in control when using e-Assessment system.	2.88	0.485

For all items of PPR (D19 to D23) for e-Assessment system, the highest mean is 2.88 with standard deviation of 0.485. This show that respondents agree that in e-Assessment system, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes.

Table 4.14: Statistics for PPR of e-Assessment

No	Items	Mean	Std. Dev
D19.	In e-Assessment system, the agency expects the public to obey its assessment.	2.53	0.874
D20.	In e-Assessment system, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes.	2.88	0.485
D21.	It is difficult for public to express disagreements with the government on assessment-related decision.	1.47	0.800
D22.	It is difficult for public to seek recourse from the government agency on assessment-related decision.	1.88	0.928
D23.	Once a decision is made by the agency, it is hard for public to question it.	1.12	0.332

4.3 Cross tabulation analysis

Crosstabs or cross tabulations display the joint distribution of two or more variables. They are usually presented in a matrix, called a contingency table. Whereas a frequency distribution tables describes the distribution of one variable, a contingency tables describes the distribution of two or more variables simultaneously. It merges two or more frequency distribution tables into one. Each cell gives the number of respondents that gave that combination of responses, which is each cell contains single cross tabulation.

In this project, cross tabulation test is employed to determine whether there is a significant difference between the category of dependent variables (Likely to Use). As for example the Chi-square test indicates that there is a significant difference between this constructor for e-Filing, e-Quit Rent and e-Assessment system. Table 4.15 shows cross tabulation result for e-Filing system.

Table 4.15: Cross tabulation results and Chi Square for e-Filing

E-FILING SYSTEM							
Items		Disagree	Neither	Agree	Total	Likely to use	Chi2
B2	The online explanation (help window and explanation note) provided in this e-filing system is one of the best ways to assist me to prepare my tax filing form.	3	3	94	100	100	<0.00
B3	The online explanation provided by e-filing system improves my productivity in preparing income tax filing form.	1	11	88	100	100	<0.00
B4	The online explanation provided by e-filing system makes it easier for me to complete tax filing form.	2	5	93	100	100	<0.00
B5	The online explanation provided by e-filing system enhances my effectiveness in preparing income tax filing form.	1	3	96	100	100	<0.00
B6	The online explanation provided by e-filing system is useful in preparing income tax filing form.	0	2	98	100	100	<0.00
B7	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.	0	7	93	100	100	<0.00
B8	I am happy with the explanation provided in this e-filing system.	0	24	76	100	100	<0.00
B9	The online explanation makes it easy to understand how the tax rules are applied to my situation.	8	14	78	100	100	<0.00
B10	The online explanation on how my assessment is done is clear.	9	16	75	100	100	<0.00
B11	The online explanation on how my assessment is done is easy to understand.	9	12	79	100	100	<0.00
B12	The online explanation contains terms that are confusing me.	35	28	37	100	100	<0.00
B13	The explanation for my assessment is organized so they are easy to follow.	9	13	78	100	100	<0.00
B14	The advices given by the online explanation are often too long to be understood.	53	23	24	100	100	<0.00
B15	I felt calm when using e-filing system.	22	10	68	100	100	<0.00
B16	I felt confused when using e-filing system.	77	6	17	100	100	<0.00
B17	I felt frustrated when using e-filing system.	76	10	14	100	100	<0.00
B18	I felt in control when using e-filing system.	14	11	75	100	100	<0.00
B19	In tax assessment, the agency expects the public to obey its assessment.	10	12	78	100	100	<0.00
B20	In tax assessment, the agency strives to	11	10	79	100	100	<0.00

	assist the public to understand the reasoning processes behind assessment outcomes.						
B21	It is difficult for public to express disagreements with the government on assessment-related decision.	30	24	46	100	100	<0.00
B22	It is difficult for public to seek recourse from the government agency on assessment-related decision.	43	21	36	100	100	<0.00
B23	Once a decision is made by the agency, it is hard for public to question it.	28	21	51	100	100	<0.00

Cross tabulation result shown in Table 4.15 indicates that all respondents (100%) are likely to use a system with this kind of online explanation to do other related task in future. This result shows that online explanation is really helpful for them to complete their task such as e-Filing. Similar observation is also shown for e-Quit Rent (Table 4.16).

Table 4.16: Cross tabulation results and Chi Square for e-Quit Rent

E-QUIT RENT SYSTEM							
Items		Disagree	Neither	Agree	Total	Likely to use	Chi2
C2.	The online explanation (manual) provided in this e-Quit Rent system is one of the best ways to assist me to pay my quit rent.	0	6	21	27	26	<0.00
C3.	The online explanation provided by e-Quit Rent system improves my productivity to check and pay my quit rent.	0	5	22	27	26	<0.00
C4.	The online explanation provided by e-Quit Rent system makes it easier for me to check and pay my quit rent.	3	0	24	27	26	<0.00
C5.	The online explanation provided by e-Quit Rent system enhances my effectiveness to check and pay my quit rent.	0	3	24	27	26	<0.00
C6.	The online explanation provided by e-Quit Rent system is useful in preparing my quit rent assessment.	4	0	23	27	26	<0.00
C7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.	0	0	27	27	26	<0.00
C8.	I am happy with the explanation provided in this quit rent system.	0	3	24	27	26	<0.00
C9.	The online explanation makes it easy to understand how the quit rent rules are applied to my situation.	5	4	18	27	26	<0.00
C10.	The online explanation on how my assessment is done is clear.	3	1	23	27	26	<0.00
C11.	The online explanation on how my assessment is done is easy to understand.	2	4	21	27	26	<0.00

C12.	The online explanation contains terms that are confusing me.	11	4	12	27	26	<0.00
C13.	The explanation for my assessment is organized so they are easy to follow.	2	3	22	27	26	<0.00
C14.	The advices given by the online explanation are often too long to be understood.	9	5	13	27	26	<0.00
C15.	I felt calm when using e-Quit Rent system.	5	2	20	27	26	<0.00
C16.	I felt confused when using e-Quit Rent system.	19	3	5	27	26	<0.00
C17.	I felt frustrated when using e-Quit Rent system.	13	2	12	27	26	<0.00
C18.	I felt in control when using e-Quit Rent system.	4	2	21	27	26	<0.00
C19.	In quit rent assessment, the agency expects the public to obey its assessment.	10	0	17	27	26	<0.00
C20.	In quit rent assessment, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes.	3	2	22	27	26	<0.00
C21.	It is difficult for public to express disagreements with the government on assessment-related decision.	5	6	16	27	26	<0.00
C22.	It is difficult for public to seek recourse from the agency on assessment –related decision.	10	4	13	27	26	<0.00
C23.	Once a decision is made by the agency, it is hard for public to question it.	9	4	14	27	26	<0.00

Cross tabulation results shown in Table 4.16 indicates that there are some respondents who did not likely to use e-Quit Rent system. However, 26% are likely to use and only 1% did not likely to use explanation provided in e-Quit Rent system. Table 4.17 shows the cross tabulation result for the e-Assessment. The result indicates that 17% respondents who have experienced with e-Assessment were agree likely to use this kind of online explanation to do other related task in future.

Table 4.17: Cross tabulation results and Chi Square for e-Assessment

E-ASSESSMENT SYSTEM							
Items		Disagree	Neither	Agree	Total	Likely to use	Chi2
D2.	The online explanation (manual) provided in e-Assessment system is one of the best ways to assist me to pay my assessment tax.	0	2	15	17	17	<0.00
D3.	The online explanation provided by e-Assessment system improves my productivity to check and pay my assessment tax.	0	2	15	17	17	<0.00
D4.	The online explanation provided by e-Assessment system makes it easier for me to check and pay my assessment tax.	0	0	17	17	17	<0.00

D5.	The online explanation provided by e-Assessment system enhances my effectiveness to check and pay my assessment tax.	0	0	17	17	17	<0.00
D6.	The online explanation provided by e-Assessment system is useful for checking my assessment tax.	0	0	17	17	17	<0.00
D7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.	0	0	17	17	17	<0.00
D8.	I am happy with the explanation provided in e-Assessment system.	0	4	13	17	17	<0.00
D9.	The online explanation makes it easy to understand how the assessment rules are applied to my situation.	0	6	11	17	17	<0.00
D10.	The online explanation on how my assessment is done is clear.	2	4	11	17	17	<0.00
D11.	The online explanation on how my assessment is done is easy to understand.	5	2	10	17	17	<0.00
D12.	The online explanation contains terms that are confusing me.	6	1	10	17	17	<0.00
D13.	The explanations for my assessment are organized so they are easy to follow.	4	1	12	17	17	<0.00
D14.	The advices given by the online explanation are often too long to be understood.	6	1	10	17	17	<0.00
D15.	I felt calm when using e-Assessment system.	4	2	11	17	17	<0.00
D16.	I felt confused when using e-Assessment system.	13	3	1	17	17	<0.00
D17.	I felt frustrated when using e-Assessment system.	11	1	5	17	17	<0.00
D18.	I felt in control when using e-Assessment system.	1	0	16	17	17	<0.00
D19.	In e-Assessment system, the agency expects the public to obey its assessment.	4	0	13	17	17	<0.00
D20.	In e-Assessment system, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes.	1	0	16	17	17	<0.00
D21.	It is difficult for public to express disagreements with the government on assessment-related decision.	12	2	3	17	17	<0.00
D22.	It is difficult for public to seek recourse from the agency on assessment –related decision.	8	3	6	17	17	<0.00
D23.	Once a decision is made by the agency, it is hard for public to question it.	15	0	2	17	17	<0.00

4.4 Correlation analysis

Correlation is a single number that describes the degree of relationship between two variables (Rumel, 2002). The symbol ‘R’ stands for correlation result. That ‘R’ will

always be between -1.0 and +1.0. Negative correlation value indicates a negative relationship; otherwise if it is positive then the relationship between the variables is positive. An independent variable (IV) is a variable that stands alone and isn't changed by the other variables one is trying to measure. However, a dependent variable (DV) is exactly what it sounds like. It is something that depends on the other factors. IV causes a change in DV and it is not possible that DV could cause a change in IV.

4.4.1 Correlation analysis for e-Filing

This test is conducted to check whether all IV (i.e. IPS and IPT) are significantly correlated with DV (i.e. SOC and PPR). The findings are as exhibited in Table 4.18 and Table 4.19 respectively. The IV (IPS) are significantly correlated with DV (SOC) in which all items have correlation between 0.000 and 0.907. The IPT are also significantly correlated with SOC with correlation between 0.000 and 0.168. These values show positive relationship between the IV and DV.

Table 4.18: Correlation between IPS and SOC for e-Filing

	Information Process Satisfaction (IV)	Sense of Control (DV)							
		I felt calm when using e-Filing system		I felt confused when using e-Filing system		I felt frustrated when using e-Filing system		I felt in control when using e-Filing system	
		Sig	R	Sig	R	Sig	R	Sig	R
B2.	The online explanation (help window and explanation note) provided in this e-filing system is one of the best ways to assist me to prepare my tax filing form.	0.312[c]	0.029	0.031[c]	0.077	0.125[c]	0.012	0.064[c]	0.088
B3.	The online explanation provided by e-filing system improves my productivity in preparing income tax filing form.	0.019[c]	0.062	0.103[c]	0.016	0.114[c]	0.133	0.000[c]	0.160
B4.	The online explanation provided by e-filing system makes it easier for me to complete tax filing form.	0.000[c]	0.141	0.001[c]	0.058	0.002[c]	0.180	0.000[c]	0.125
B5.	The online explanation provided by e-filing system enhances my effectiveness in preparing income tax filing form.	0.007[c]	0.092	0.907[c]	0.021	0.384[c]	0.031	0.000[c]	0.155
B6.	The online explanation provided by e-filing system is useful in preparing income tax filing form.	0.493[c]	0.010	0.016[c]	0.064	0.040[c]	0.092	0.016[c]	0.055
B7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.	0.131[c]	0.021	0.798[c]	0.007	0.305[c]	0.022	0.160[c]	0.048
B8.	I am happy with the explanation provided in this e-filing system.	0.001[c]	0.102	0.509[c]	0.020	0.112[c]	0.040	0.145[c]	0.032

[c]based on normal approximation

Table 4.19: Correlation between IPT and SOC for e-Filing

	Information Process Transparency (IV)	Sense of Control (DV)							
		I felt calm when using e-Filing system		I felt confused when using e-Filing system		I felt frustrated when using e-Filing system		I felt in control when using e-Filing system	
		Sig	R	Sig	R	Sig	R	Sig	R
B9.	The online explanation makes it easy to understand how the tax rules are applied to my situation.	0.000[c]	0.156	0.013[c]	0.056	0.052[c]	0.104	0.000[c]	0.140
B10.	The online explanation on how my assessment is done is clear.	0.001[c]	0.110	0.000[c]	0.140	0.168[c]	0.065	0.007[c]	0.064
B11.	The online explanation on how my assessment is done is easy to understand.	0.000[c]	0.129	0.000[c]	0.213	0.137[c]	0.054	0.012[c]	0.059
B12.	The online explanation contains terms that are confusing me.	0.006[c]	0.085	0.054[c]	0.045	0.090[c]	0.035	0.004[c]	0.082
B13.	The explanation for my assessment is organized so they are easy to follow.	0.000[c]	0.153	0.000[c]	0.098	0.000[c]	0.072	0.107[c]	0.024
B14.	The advices given by the online explanation are often too long to be understood.	0.000[c]	0.186	0.000[c]	0.234	0.022[c]	0.054	0.000[c]	0.145

[c]based on normal approximation

Table 4.20 illustrates that there is a significant relationship between all item of IV (i.e. IPS) and DV (i.e. PPR) as the correlation results for both variables are from 0.000 to 0.999. The IV (IPT) also correlated positively with the DV; the correlation values are depicted in Table 4.21.

Table 4.20 : Correlation between IPS and PPR for e-Filing

	Information Process Satisfaction (IV)	Perceived Power Relationship (DV)									
		The agency expects the public to obey its assessment		The agency strives to assist the public to understand the reasoning processes behind assessment outcomes		Difficult for public to express disagreements with the government on assessment-related decision		Difficult for public to seek recourse from the government agency on assessment-related decision.		Once a decision is made by the agency, it is hard for public to question it.	
		Sig	R	Sig	R	Sig	R	Sig	R	Sig	R
B2.	The online explanation (help window and explanation note) provided in this e-filing system is one of the best ways to assist me to prepare my tax filing form.	0.481[c]	0.007	0.092[c]	0.034	0.293[c]	0.014	0.469[c]	0.012	0.201[c]	0.024
B3.	The online explanation provided by e-filing system improves my productivity in preparing income tax filing form.	0.000[c]	0.132	0.000[c]	0.232	0.873[c]	0.030	0.202[c]	0.008	0.578[c]	0.027
B4.	The online explanation provided by e-filing system makes it easier for me to complete tax filing form.	0.000[c]	0.088	0.000[c]	0.214	0.762[c]	0.004	0.019[c]	0.062	0.111[c]	0.039
B5.	The online explanation provided by	0.741[c]	0.030	0.010[c]	0.060	0.858[c]	0.002	0.481[c]	0.000	0.999[c]	0.003

	e-filing system enhances my effectiveness in preparing income tax filing form.										
B6.	The online explanation provided by e-filing system is useful in preparing income tax filing form.	0.457[c]	0.010	0.018[c]	0.092	0.153[c]	0.031	0.090[c]	0.041	0.188[c]	0.027
B7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.	0.019[c]	0.044	0.001[c]	0.090	0.751[c]	0.017	0.259[c]	0.033	0.687[c]	0.072
B8.	I am happy with the explanation provided in this e-filing system.	0.092[c]	0.036	0.005[c]	0.071	0.179[c]	0.021	0.001[c]	0.110	0.026[c]	0.070

[c]based on normal approximation

Table 4.21 : Correlation between IPT and PPR for e-Filing

	Information Process Transparency (IV)	Perceived Power Relationship (DV)									
		The agency expects the public to obey its assessment		The agency strives to assist the public to understand the reasoning processes behind assessment outcomes		Difficult for public to express disagreements with the government on assessment-related decision.		Difficult for public to seek recourse from the government agency on assessment-related decision.		Once a decision is made by the agency, it is hard for public to question it.	
		Sig	R	Sig	R	Sig	R	Sig	R	Sig	R
B9.	The online explanation makes it easy to understand how the tax rules are applied to my situation.	0.000[c]	0.166	0.000[c]	0.243	0.611[c]	0.012	0.000[c]	0.117	0.595[c]	0.016
B10	The online explanation on how my assessment is done is clear.	0.021[c]	0.087	0.000[c]	0.128	0.221[c]	0.013	0.000[c]	0.186	0.398[c]	0.035
B11	The online explanation on how my assessment is done is easy to understand.	0.004[c]	0.097	0.000[c]	0.106	0.681[c]	0.007	0.000[c]	0.121	0.764[c]	0.008
B12	The online explanation contains terms that are confusing me.	0.989[c]	0.010	0.050[c]	0.042	0.858[c]	0.000	0.061[c]	0.036	0.662[c]	0.042
B13	The explanation for my assessment is organized so they are easy to follow.	0.002[c]	0.060	0.000[c]	0.143	0.267[c]	0.023	0.009[c]	0.079	0.528[c]	0.015
B14	The advices given by the online explanation are often too long to be understood.	0.002[c]	0.085	0.000[c]	0.137	0.183[c]	0.029	0.000[c]	0.142	0.753[c]	0.005

[c]based on normal approximation

4.4.2 Correlation analysis for e-Quit Rent

For e-Quit Rent system, Table 4.22 shows the correlation result between IV (IPS) and DV (SOC) which are in positive values ranging from 0.000 to 0.981. For the IV (IPT) versus DV (SOC), the correlation results are as shown in Table 4.23.

Table 4.22: Correlation between IPS and SOC for e-Quit Rent

	Information Process Satisfaction (IV)	Sense of Control (DV)			
		I felt calm when using e-	I felt confused when using e-	I felt frustrated	I felt in control when

		Quit Rent system		Quit Rent system		when using e-Quit Rent system		using e-Quit Rent system	
		Sig	R	Sig	R	Sig	R	Sig	R
C2.	The online explanation (manual) provided in this e-Quit Rent system is one of the best ways to assist me to pay my quit rent.	0.458[c]	0.116	0.888[c]	0.176	0.198[c]	0.102	0.611[c]	0.098
C3.	The online explanation provided by e-Quit Rent system improves my productivity to check and pay my quit rent.	0.606[c]	0.108	0.880[c]	0.184	0.375[c]	0.077	0.203[c]	0.099
C4.	The online explanation provided by e-Quit Rent system makes it easier for me to check and pay my quit rent.	0.300[c]	0.069	0.257[c]	0.080	0.069[c]	0.163	0.349[c]	0.058
C5.	The online explanation provided by e-Quit Rent system enhances my effectiveness to check and pay my quit rent.	0.300[c]	0.069	0.257[c]	0.080	0.069[c]	0.163	0.349[c]	0.058
C6.	The online explanation provided by e-Quit Rent system is useful in preparing my quit rent assessment.	0.000[c]	0.480	0.000[c]	0.480	0.019[c]	0.239	0.267[c]	0.078
C7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.	.	0.000	.	0.000	.	0.000	.	0.000
C8.	I am happy with the explanation provided in this quit rent system.	0.961[c]	0.107	0.347[c]	0.234	0.933[c]	0.076	0.349[c]	0.058

[c]based on normal approximation

Table 4.23: Correlation between IPT and SOC for e-Quit Rent

	Information Process Transparency (IV)	Sense of Control (DV)							
		I felt calm when using e-Quit Rent system		I felt confused when using e-Quit Rent system		I felt frustrated when using e-Quit Rent system		I felt in control when using e-Quit Rent system	
		Sig	R	Sig	R	Sig	R	Sig	R
C9.	The online explanation makes it easy to understand how the quit rent rules are applied to my situation.	0.018[c]	0.350	0.006[c]	0.327	0.595[c]	0.029	0.059[c]	0.190
C10.	The online explanation on how my assessment is done is clear.	0.220[c]	0.093	0.180[c]	0.108	0.030[c]	0.217	0.268[c]	0.078
C11.	The online explanation on how my assessment is done is easy to understand.	0.668[c]	0.017	0.329[c]	0.100	0.451[c]	0.049	0.155[c]	0.121
C12.	The online explanation contains terms that are confusing me.	0.004[c]	0.332	0.008[c]	0.249	0.134[c]	0.085	0.072[c]	0.269
C13.	The explanation for my assessment are organized so they are easy to follow.	0.487[c]	0.027	0.978[c]	0.111	0.141[c]	0.074	0.717[c]	0.071
C14.	The advices given by the online explanation are often too long to be understood.	0.002[c]	0.381	0.003[c]	0.335	0.009[c]	0.228	0.713[c]	0.008

[c]based on normal approximation

The IV (IPS) is significantly correlated with DV (PPR) as depicted in Table 4.24. The correlation results for IV (IPT) and DV (PPR) are as shown in Table 4.25.

Table 4.24: Correlation between IPS and PPR for e-Quit Rent

	Information Process Satisfaction (IV)	Perceived Power Relationship (DV)									
		The agency expects the public to obey its assessment		The agency strives to assist the public to understand the reasoning processes behind assessment outcomes		Difficult for public to express disagreements with the government on assessment-related decision		Difficult for public to seek recourse from the government agency on assessment-related decision.		Once a decision is made by the agency, it is hard for public to question it.	
		Sig	R	Sig	R	Sig	R	Sig	R	Sig	R
C2.	The online explanation (manual) provided in this e-Quit Rent system is one of the best ways to assist me to pay my quit rent.	0.034[c]	0.215	0.802[c]	0.080	0.000[c]	0.395	0.054[c]	0.356	0.023[c]	0.374
C3.	The online explanation provided by e-Quit Rent system improves my productivity to check and pay my quit rent.	0.061[c]	0.178	0.964[c]	0.080	0.001[c]	0.347	0.049[c]	0.260	0.024[c]	0.280
C4.	The online explanation provided by e-Quit Rent system makes it easier for me to check and pay my quit rent.	0.171[c]	0.105	0.403[c]	0.047	0.002[c]	0.361	0.028[c]	0.217	0.018[c]	0.239
C5.	The online explanation provided by e-Quit Rent system enhances my effectiveness to check and pay my quit rent.	0.171[c]	0.105	0.403[c]	0.047	0.002[c]	0.361	0.028[c]	0.217	0.018[c]	0.239
C6.	The online explanation provided by e-Quit Rent system is useful in preparing my quit rent assessment.	0.003[c]	0.289	0.323[c]	0.064	0.088[c]	0.158	0.034[c]	0.217	0.048[c]	0.196
C7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000
C8.	I am happy with the explanation provided in this quit rent system.	0.171[c]	0.105	0.618[c]	0.094	0.639[c]	0.129	0.743[c]	0.206	0.901[c]	0.202

[c]based on normal approximation

Table 4.25: Correlation between IPT and PPR for e-Quit Rent

	Information Process Transparency (IV)	Perceived Power Relationship (DV)									
		The agency expects the public to obey its assessment		The agency strives to assist the public to understand the reasoning processes behind assessment outcomes		Difficult for public to express disagreements with the government on assessment-related decision		Difficult for public to seek recourse from the government agency on assessment-related decision.		Once a decision is made by the agency, it is hard for public to question it.	
		Sig	R	Sig	R	Sig	R	Sig	R	Sig	R
C9.	The online explanation makes it easy to understand how the quit rent rules are applied to my situation.	0.048[c]	0.198	0.672[c]	0.063	0.418[c]	0.047	0.013[c]	0.249	0.153[c]	0.125
C10.	The online explanation on how my assessment is done is clear.	0.635[c]	0.005	0.622[c]	0.057	0.624[c]	0.018	0.385[c]	0.065	0.653[c]	0.071
C11.	The online explanation on how my assessment is done is easy to	0.325[c]	0.016	0.283[c]	0.051	0.116[c]	0.117	0.903[c]	0.001	0.321[c]	0.029

	understand.										
C12.	The online explanation contains terms that are confusing me.	0.894[c]	0.001	0.410[c]	0.281	0.522[c]	0.018	0.408[c]	0.040	0.128[c]	0.089
C13.	The explanation for my assessment are organized so they are easy to follow.	0.857[c]	0.003	0.015[c]	0.150	0.099[c]	0.175	0.769[c]	0.003	0.643[c]	0.002
C14.	The advices given by the online explanation are often too long to be understood.	0.489[c]	0.017	0.518[c]	0.020	0.622[c]	0.084	0.105[c]	0.089	0.266[c]	0.066

[c]based on normal approximation

4.4.3 Correlation analysis for e-Assessment

For e-Assessment system, the correlation result for IV (IPS) versus DV (SOC) is as depicted in Table 4.26. Table 4.27 shows the results for IV (IPT) versus DV (SOC). All items in Table 4.26 show positive results from 0.000 to 0.728; for Table 4.27, the results are from 0.00 to 0.752.

Table 4.26: Correlation between IPS and SOC for e-Assessment

	Information Process Satisfaction (IV)	Sense of Control (DV)							
		I felt calm when using e-Assessment system		I felt confused when using e-Assessment system		I felt frustrated when using e-Assessment system		I felt in control when using e-Assessment system	
		Sig	R	Sig	R	Sig	R	Sig	R
D2.	The online explanation (manual) provided in e-Assessment system is one of the best ways to assist me to pay my assessment tax.	0.306[c]	0.105	0.439[c]	0.066	0.302[c]	0.105	0.728[c]	0.015
D3.	The online explanation provided by e-Assessment system improves my productivity to check and pay my assessment tax.	0.306[c]	0.105	0.439[c]	0.066	0.302[c]	0.105	0.728[c]	0.015
D4.	The online explanation provided by e-Assessment system makes it easier for me to check and pay my assessment tax.	.	0.000	.	0.000	.	0.000	.	0.000
D5.	The online explanation provided by e-Assessment system enhances my effectiveness to check and pay my assessment tax.	.	0.000	.	0.000	.	0.000	.	0.000
D6.	The online explanation provided by e-Assessment system is useful for checking my assessment tax.	.	0.000	.	0.000	.	0.000	.	0.000
D7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.	.	0.000	.	0.000	.	0.000	.	0.000
D8.	I am happy with the explanation provided in e-Assessment system.	0.000[c]	0.664	0.233[c]	0.137	0.000[c]	0.549	0.596[c]	0.032

Table 4.27: Correlation between IPT and SOC for e-Assessment

	Information Process Transparency (IV)	Sense of Control (DV)							
		I felt calm when using e-Assessment system		I felt confused when using e-Assessment system		I felt frustrated when using e-Assessment system		I felt in control when using e-Assessment system	
		Sig	R	Sig	R	Sig	R	Sig	R
D9.	The online explanation makes it easy to understand how the assessment rules are applied to my situation.	0.012[c]	0.496	0.105[c]	0.216	0.026[c]	0.323	0.478[c]	0.052
D10	The online explanation on how my assessment is done is clear.	0.069[c]	0.213	0.113[c]	0.216	0.109[c]	0.120	0.487[c]	0.052
D11	The online explanation on how my assessment is done is easy to understand.	0.000[c]	0.609	0.071[c]	0.259	0.000[c]	0.709	0.434[c]	0.063
D12	The online explanation contains terms that are confusing me.	0.012[c]	0.398	0.308[c]	0.218	0.011[c]	0.398	0.429[c]	0.063
D13	The explanations for my assessment are organized so they are easy to follow.	0.000[c]	0.739	0.752[c]	0.137	0.000[c]	0.602	0.322[c]	0.017
D14	The advices given by the online explanation are often too long to be understood.	0.012[c]	0.398	0.267[c]	0.118	0.011[c]	0.398	0.429[c]	0.063

Table 4.28 shows a positive result between IV (IPS) and DV (PPR) in which the values are from 0.000 to 0.758. The IV (IPT) and DV (PPR) are positively correlated as shown in Table 4.29. As a conclusion, all IV (IPS and IPT) correlated positively with DV (SOC and PPR).

Table 4.28: Correlation between IPS and PPR for e-Assessment

	Information Process Satisfaction (IV)	Perceived Power Relationship (DV)									
		The agency expects the public to obey its assessment		The agency strives to assist the public to understand the reasoning processes behind assessment outcomes		Difficult for public to express disagreements with the government on assessment-related decision		Difficult for public to seek recourse from the government agency on assessment-related decision.		Once a decision is made by the agency, it is hard for public to question it.	
		Sig	R	Sig	R	Sig	R	Sig	R	Sig	R
D2.	The online explanation (manual) provided in e-Assessment system is one of the best ways to assist me to pay my assessment tax.	0.436[c]	0.066	0.728[c]	0.015	0.095[c]	0.515	0.758[c]	0.393	0.000[b]	0.515
D3.	The online explanation provided by e-Assessment system improves my productivity to check and pay my assessment tax.	0.436[c]	0.066	0.728[c]	0.015	0.095[c]	0.515	0.758[c]	0.393	0.000[b]	0.515
D4.	The online explanation provided by e-Assessment system makes it easier for me to check and pay my assessment tax.	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000
D5.	The online explanation provided by	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000

	e-Assessment system enhances my effectiveness to check and pay my assessment tax.										
D6.	The online explanation provided by e-Assessment system is useful for checking my assessment tax.	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000
D7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.	.	0.000	.	0.000	.	0.000	.	0.000	.	0.000
D8.	I am happy with the explanation provided in e-Assessment system.	0.000[b]	0.664	0.596[c]	0.032	0.165[c]	0.175	0.026[c]	0.314	0.436[c]	0.066

Table 4.29: Correlation between IPT and PPR for e-Assessment

	Information Process Satisfaction (IV)	Perceived Power Relationship (DV)									
		The agency expects the public to obey its assessment		The agency strives to assist the public to understand the reasoning processes behind assessment outcomes		Difficult for public to express disagreements with the government on assessment-related decision		Difficult for public to seek recourse from the government agency on assessment-related decision.		Once a decision is made by the agency, it is hard for public to question it.	
		Sig	R	Sig	R	Sig	R	Sig	R	Sig	R
D9.	The online explanation makes it easy to understand how the assessment rules are applied to my situation.	0.001[c]	0.474	0.478[c]	0.052	0.632[c]	0.161	0.000[c]	0.530	0.295[c]	0.105
D10	The online explanation on how my assessment is done is clear.	0.011[c]	0.151	0.487[c]	0.052	0.314[c]	0.308	0.000[c]	0.550	0.306[c]	0.105
D11	The online explanation on how my assessment is done is easy to understand.	0.000[c]	0.549	0.170[c]	0.142	0.644[c]	0.131	0.000[c]	0.623	0.247[c]	0.127
D12	The online explanation contains terms that are confusing me.	0.066[c]	0.259	0.429[c]	0.063	0.031[c]	0.327	0.000[c]	0.632	0.242[c]	0.127
D13	The explanations for my assessment are organized so they are easy to follow.	0.000[c]	0.664	0.540[c]	0.042	0.513[c]	0.105	0.087[c]	0.216	0.367[c]	0.085
D14	The advices given by the online explanation are often too long to be understood.	0.066[c]	0.259	0.429[c]	0.063	0.760[c]	0.356	0.034[c]	0.401	0.056[c]	0.241

4.5 Logistic regression analysis

Logistic regression, also called multi-nominal logistic regression, is a statistical analysis technique that assesses the impact of a predictor variable (IV) on a criterion variable (DV). Thus, logistic regression model is used to evaluate whether the online explanation as provided in e-Filing, e-Quit Rent and e-Assessment systems leads to greater satisfaction and greater transparency among the public and whether greater

satisfaction and greater transparency contribute to better perceived power relationship and a greater sense of control. The statistics in the Likelihood Ratio Test are used to determine whether each item in each variable contributed meaningfully to the full effect of model.

4.5.1 Likelihood ratio test for e-Filing

The null hypothesis for log likelihood ratio states that IV is not linearly related to the log odds of the DV. The Likelihood Ratio test indicates that for IPS, 4 out of 7 items are significant towards DV, as illustrated in Table 4.30. However for IPT, none of the items is significant towards DV.

Table 4.30: IPS and IPT towards SOC
(I felt calm when using e-Filing system)

	I felt calm when using e-Filing system (DV)				
Effect of **IPT (IV)**	-2 Log Likelihood of Reduced Model	Sig.	Effect of **IPT (IV)**	-2 Log Likelihood of Reduced Model	Sig.
Intercept	16.621[a]	0.000	Intercept.	111.695	0.047
B2	21.744[a]	0.077	B9	110.732	0.076
B3	18.677[a]	0.358	B10	106.391	0.670
B4	31.764	0.001	B11	107.107	0.469
B5	27.011[a]	0.006	B12	107.802	0.331
B6	23.050[a]	0.040	B13	108.147	0.279
B7	17.662[a]	0.594	B14	110.496	0.086
B8	24.593[a]	0.019			

For Wald statistics table, the null hypothesis states that all logit coefficients are zero. Based on Parameter Estimate table (Table 4.31), only item B8 and B9 are significance variable towards DV.

Table 4.31: Parameter Estimates SOC
(I felt calm when using e-filing system)

Parameter Estimates							
I felt calm when using e-filing system[a]	B	Wald	Sig	I felt calm when using e-filing system[a]	B	Wald	Sig
Disagree Intercept	-19.552	0.000	0.993	**Disagree** Intercept	2.813	1.379	0.240
B2	11.524	0.002	0.964	B9	-1.287	4.406	0.036
B3	16.217	0.001	0.982	B10	0.687	0.699	0.403
B4	-31.666	0.002	0.966	B11	-0.703	0.948	0.330
B5	-16.812	0.000	0.982	B12	-0.044	0.011	0.917
B6	27.654	0.001	0.970	B13	-0.686	1.891	0.169
B7	0.928	0.503	0.478	B14	0.735	2.996	0.083

B8	-1.921	7.838	0.005				
Neither Intercept	33.907	0.000	0.985	**Neither** Intercept	-5.313	2.502	0.114
B2	-1.379	1.343	0.246	B9	-0.990	1.304	0.254
B3	11.425	0.001	0.973	B10	0.638	0.334	0.564
B4	12.750	0.000	0.983	B11	0.299	0.077	0.781
B5	-37.163	0.002	0.964	B12	0.737	1.968	0.161
B6	-8.126	.	.	B13	0.153	0.046	0.830
B7	10.574	0.001	0.972	B14	0.853	2.766	0.096
B8	-0.111	0.007	0.932				

[a] The reference category is: Agree.

The Likelihood Ratio tests indicate that for IPS, 4 out of 7 items are significant towards DV (Table 4.32). However, for IPT, only one item is significant towards DV.

Table 4.32: IPS and IPT towards SOC
(I felt confused when using e-Filing system)

	I felt confused when using e-Filing system (DV)				
Effect of **IPT (IV)**	-2 Log Likelihood of Reduced Model	Sig.	Effect of **IPT (IV)**	-2 Log Likelihood of Reduced Model	Sig.
Intercept	14.237[a]	0.000	Intercept.	72.873	0.640
B2	33.822[a]	0.000	B9	73.642	0.436
B3	26.995[a]	0.002	B10	74.275	0.318
B4	35.977[a]	0.001	B11	77.015	0.081
B5	37.501[a]	0.006	B12	72.505	0.769
B6	14.976[a]	0.691	B13	74.849	0.238
B7	14.402[a]	0.921	B14	81.884	0.007
B8	26.673[a]	0.002			

Based on Parameter Estimate table (Table 4.33), only 2 items are significant towards DV.

Table 4.33: Parameter Estimates SOC
(I felt confused when using e-filing system)

Parameter Estimates								
I felt confused when using e-filing system.[a]		B	Wald	Sig	I felt confused when using e-filing system.[a]	B	Wald	Sig
Disagree	Intercept	324.613	0.031	0.860	**Disagree** Intercept	2.305	0.812	0.368
B2		46.546	0.010	0.922	B9	-0.202	0.106	0.745
B3		-57.000	0.009	0.925	B10	-0.223	0.062	0.803
B4		102.133	0.015	0.902	B11	1.636	3.603	0.058
B5		-170.707	0.052	0.802	B12	-0.350	0.493	0.483
B6		13.922	0.000	0.000	B13	-0.052	0.011	0.917
B7		0.486	0.077	0.781	B14	-1.377	8.035	0.005
B8		-43.081	0.013	0.908				
Neither	Intercept	346.780	0.035	0.852	**Neither** Intercept	2.988	0.299	0.584
B2		21.164	0.009	0.926	B9	-1.671	1.695	0.193

B3	-18.669	0.000	0.988	B10	2.503	1.435	0.231
B4	81.062	0.009	0.923	B11	1.433	0.790	0.374
B5	-157.575	0.000	0.000	B12	-0.421	0.304	0.581
B6	-18.105	0.000	0.000	B13	-1.970	2.106	0.147
B7	9.248	0.001	0.981	B14	-2.083	3.230	0.072
B8	-33.173	0.010	0.920				

[a] The reference category is: Agree.

The Likelihood Ratio tests indicate that for IPS, 3 out of 7 items are significant towards DV (Table 4.34). However, for IPS, only1 item out of 6 items is significant towards DV (I felt frustrated when using e-Filing system).

Table 4.34: IPS and IPT towards SOC
(I felt frustrated when using e-Filing system)

	I felt frustrated when using e-Filing system				
Effect of **IPS (IV)**	-2 Log Likelihood of Reduced Model	Sig.	Effect of **IPT (IV)**	-2 Log Likelihood of Reduced Model	Sig.
Intercept	17.782[a]	0.000	Intercept.	88.597	0.920
B2	35.130[a]	0.000	B9	91.980	0.170
B3	19.735[a]	0.378	B10	89.097	0.717
B4	34.781[a]	0.000	B11	89.335	0.636
B5	23.754[a]	0.051	B12	88.799	0.832
B6	17.783[a]	0.000	B13	95.358	0.031
B7	18.075[a]	0.867	B14	88.777	0.841
B8	18.786[a]	0.608			

Table 4.35: Parameter Estimates SOC
(I felt frustrated when using e-filing system)

Parameter Estimates								
I felt frustrated when using e-filing system.[a]		B	Wald	Sig	I felt frustrated when using e-filing system.[a]		B	Wald	Sig
Disagree	Intercept	22.908	0.000	0.986	**Disagree**	Intercept	1.274	0.164	0.686
B2		1.122	1.302	0.254		B9	0.188	0.042	0.837
	B3	-8.685	0.014	0.906		B10	-0.856	0.628	0.428
	B4	3.912	0.000	0.991		B11	-0.585	0.452	0.501
	B5	-1.767	0.000	0.994		B12	-0.166	0.160	0.689
	B6	-2.287	0.000	0.995		B13	1.570	4.600	0.032
	B7	0.597	0.215	0.643		B14	0.091	0.028	0.868
	B8	0.050	0.004	0.950					
Neither	Intercept	86.221	0.013	0.911	**Neither**	Intercept	1.040	0.068	0.795
	B2	35.932	0.137	0.711		B9	-0.972	0.885	0.347
	B3	-2.024	0.000	0.983		B10	-0.738	0.327	0.568
	B4	-23.382	0.005	0.945		B11	-0.998	0.880	0.348
	B5	-13.131	0.003	0.957		B12	0.105	0.026	0.873
	B6	-37.287	0.000	0.000		B13	1.822	3.878	0.049
	B7	4.630	0.018	0.895		B14	0.395	0.283	0.595
	B8	6.128	0.050	0.823					

[a] The reference category is: Agree.

The Likelihood Ratio test in Table 4.36 indicates that for IPS, 5 out of 7 items are significant towards DV (I felt in control when using e-Filing system). However for IPT, 2 out of 6 items are significant towards DV.

Table 4.36 : IPS and IPT Towards SOC
(I felt in control when using e-Filing system)

	I felt in control when using e-Filing system (DV)				
Effect of **IPS (IV)**	-2 Log Likelihood of Reduced Model	Sig.	Effect of **IPT (IV)**	-2 Log Likelihood of Reduced Model	Sig.
Intercept	16.422[a]	0.000	Intercept.	90.058	0.166
B2	23.051[a]	0.037	B9	94.845	0.015
B3	25.775[a]	0.009	B10	89.282	0.245
B4	17.385[a]	0.622	B11	87.209	0.691
B5	26.137[a]	0.008	B12	87.940	0.479
B6	16.422[a]	0.000	B13	89.260	0.248
B7	24.174[a]	0.021	B14	93.897	0.024
B8	19.966[a]	0.171			

Based on parameter estimate in Table 4.37, 2 items are significant towards DV (I felt in control when using e-Filing system).

Table 4.37: Parameter Estimates SOC
(I felt in control when using e-filing system)

Parameter Estimates								
I felt in control when using e-filing system.[a]		B	Wald	Sig	I felt in control when using e-filing system.[a]		B	Wald	Sig
Disagree	Intercept	47.806	0.004	0.951	**Disagree**	Intercept	-4.736	3.068	0.080
	B2	-2.406	3.070	0.080		B9	-1.843	4.419	0.036
	B3	8.539	0.023	0.881		B10	1.603	2.371	0.124
	B4	0.5919	0.013	0.910		B11	-0.544	0.504	0.478
	B5	-17.374	0.065	0.798		B12	0.518	1.254	0.263
	B6	-10.852	0.002	0.967		B13	0.796	1.719	0.190
	B7	-2.014	1.708	0.191		B14	1.059	4.748	0.029
	B8	1.574	1.135	0.287					
Neither	Intercept	-21.383	0.003	0.956	**Neither**	Intercept	-3.346	1.338	0.247
	B2	7.752	0.060	0.807		B9	-1.953	5.210	0.022
	B3	-3.646	7.185	0.007		B10	0.982	0.967	0.325
	B4	-5.575	0.088	0.766		B11	-0.529	0.481	0.488
	B5	-1.005	0.000	0.985		B12	0.363	0.430	0.512
	B6	-7.237	0.000	0.000		B13	0.866	1.830	0.176
	B7	17.225	0.020	0.888		B14	1.174	4.069	0.044
	B8	-1.370	1.974	0.160					

[a] The reference category is: Agree.

In Table 4.38, the Likelihood Ratio tests indicate that for IPS, 4 out of 7 items are significant towards DV. However for IPT, 3 out of 6 items are significant towards DV.

Table 4.38: IPS and IPT towards PPR
(In tax assessment, the agency expects the public to obey its assessment)

	In tax assessment, the agency expects the public to obey its assessment.(DV)				
Effect of **IPS (IV)**	-2 Log Likelihood of Reduced Model	Sig.	Effect of **IPT (IV)**	-2 Log Likelihood of Reduced Model	Sig.
Intercept	31.371	.043	Intercept.	80.093	0.052
B2	25.807[a]	.687	B9	86.940	0.002
B3	34.630[a]	.008	B10	77.354	0.205
B4	34.980	.007	B11	76.671	0.289
B5	32.069[a]	.030	B12	81.589	0.025
B6	36.646	.003	B13	75.713	0.467
B7	30.313[a]	.072	B14	82.573	0.015
B8	26.304[a]	.536			

Based on Parameter Estimate table (Table 4.39), none of item is significant towards DV (In tax assessment, the agency expects the public to obey its assessment).

Table 4.39: Parameter Estimates PPR
(In tax assessment, the agency expects the public to obey its assessment)

Parameter Estimates								
In tax assessment, the agency expects the public to obey its assessment.[a]		B	Wald	Sig	In tax assessment, the agency expects the public to obey its assessment.[a]	B	Wald	Sig
Disagree	Intercept	-116.147	0.001	0.973	**Disagree** Intercept	7.508	3.263	0.071
B2		10.342	0.001	0.974	B9	-2.626	8.289	0.004
B3		10.180	0.000	0.990	B10	1.553	2.028	0.154
B4		37.945	0.002	0.967	B11	-1.191	2.139	0.144
B5		8.610	0.001	0.978	B12	-1.196	2.219	0.136
B6		49.970	0.002	0.969	B13	-0.918	1.388	0.239
B7		-2.318	2.488	0.115	B14	0.306	0.149	0.699
B8		-1.100	1.333	0.248				
Neither	Intercept	-102.823	0.009	0.926	**Neither** Intercept	-2.892	0.818	0.366
B2		0.187	0.016	0.898	B9	-1.241	2.150	0.143
B3		-3.600	7.729	0.005	B10	1.328	1.610	0.204
B4		-23.128	0.004	0.953	B11	0.207	0.048	0.826
B5		28.870	0.003	0.960	B12	-1.259	4.469	0.035
B6		39.164	0.000	.	B13	-0.149	0.061	0.805
B7		-2.905	4.312	0.038	B14	1.599	7.210	0.007
B8		-0.131	0.018	0.895				

[a] The reference category is: Agree.

In Table 4.40, the Likelihood Ratio tests indicate that for IPS, 3 out of 7 items are significant towards DV. However, only 1 item is significant for IPT towards DV.

Table 4.40: IPS and IPT towards PPR
(In tax assessment, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes)

	In tax assessment, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes(DV)				
Effect of **IPS (IV)**	-2 Log Likelihood of Reduced Model	Sig.	Effect of **IPT (IV)**	-2 Log Likelihood of Reduced Model	Sig.
Intercept	49.589	.023	Intercept.	78.628	0.163
B2	42.354[a]	.839	B9	87.880	0.002
B3	51.340[a]	.009	B10	75.641	0.726
B4	50.343	.015	B11	75.424	0.810
B5	42.393[a]	.822	B12	75.630	0.730
B6	48.111	.047	B13	78.362	0.186
B7	44.745[a]	.254	B14	78.164	0.206
B8	42.795[a]	.673			

Based on parameter estimate in Table 4.41, only item B9 are significant towards DV.

Table 4.41: Parameter Estimates PPR
(In tax assessment, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes)

Parameter Estimates								
In tax assessment, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes.[a]		B	Wald	Sig	In tax assessment, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes.[a]	B	Wald	Sig
Disagree	Intercept	-37.076	0.002	0.966	**Disagree** Intercept	6.270	3.097	0.078
B2		1.043	0.194	0.660	B9	-2.448	7.829	0.005
	B3	10.728	0.001	0.976	B10	0.818	0.597	0.440
	B4	-25.265	0.003	0.955	B11	-0.380	0.219	0.640
	B5	-0.820	0.096	0.757	B12	-2.55	0.153	0.696
	B6	28.311	.	.	B13	-1.263	2.838	0.092
	B7	-1.718	1.777	0.183	B14	0.172	0.058	0.810
	B8	-0.836	0.813	0.367				
Neither	Intercept	49.688	0.001	0.978	**Neither** Intercept	0.487	0.026	0.871
	B2	-0.206	0.025	0.874	B9	-1.600	4.252	0.039
	B3	-3.358	1.174	8.186	B10	0.413	0.181	0.671
	B4	-10.573	0.001	0.971	B11	0.173	0.041	0.840
	B5	0.911	0.121	0.728	B12	-0.405	0.541	0.462
	B6	-1.779	0.000	0.998	B13	-0.360	0.353	0.552
	B7	-2.166	2.200	0.138	B14	1.010	3.071	0.080
	B8	-0.481	1.150	0.676				

[a] The reference category is: Agree.

The Likelihood Ratio tests indicate that for IPS and IPT, none of items is significant towards DV, as shown in Table 4.42.

Table 4.42: IPS and IPT towards PPR
(It is difficult for public to express disagreements with the government on assessment-related decision)

	It is difficult for public to express disagreements with the government on assessment-related decision (DV)				
Effect of **IPS (IV)**	-2 Log Likelihood of Reduced Model	Sig.	Effect of **IPT (IV)**	-2 Log Likelihood of Reduced Model	Sig.
Intercept	43.863	0.192	Intercept.	113.598	0.410
B2	44.358	0.149	B9	113.442	0.443
B3	43.730	0.205	B10	114.738	0.232
B4	40.745	0.910	B11	112.569	0.685
B5	43.183	0.269	B12	112.374	0.756
B6	46.009	0.065	B13	116.168	0.113
B7	42.599	0.360	B14	116.165	0.114
B8	42.839	0.320			

Based on parameter estimate in Table 4.43, none of item is significant towards DV.

Table 4.43: Parameter Estimates PPR
(It is difficult for public to express disagreements with the government on assessment-related decision)

Parameter Estimates								
It is difficult for public to express disagreements with the government on assessment-related decision..[a]		B	Wald	Sig	It is difficult for public to express disagreements with the government on assessment-related decision.[a]	B	Wald	Sig
Disagree	Intercept	-72.901	0.009	0.923	**Disagree** Intercept	2.719	1.303	0.254
B2		-11.781	0.002	0.963	B9	-0.518	0.564	0.453
B3		-0.441	0.078	0.078	B10	1.295	1.813	0.178
B4		0.893	0.165	0.684	B11	-0.517	0.423	0.515
B5		0.033	0.000	0.985	B12	0.168	0.278	0.598
B6		35.417	.	.	B13	-1.025	3.197	0.074
B7		0.970	0.462	0.497	B14	-0.843	3.777	0.052
B8		-1.002	2.216	0.137				
Neither	Intercept	-74.236	0.010	0.922	**Neither** Intercept	2.350	1.041	0.308
B2		-12.105	0.002	0.962	B9	-0.743	1.452	0.228
B3		-2.045	2.260	0.133	B10	1.213	1.900	0.168
B4		0.690	0.147	0.702	B11	-0.574	0.625	0.429
B5		2.372	1.357	0.244	B12	-0.104	0.085	0.771
B6		36.834	.	.	B13	-0.792	2.305	0.129
B7		-0.904	0.624	0.429	B14	-0.198	0.230	0.631
B8		0.432	0.315	0.575				

[a] The reference category is: Agree.

The likelihood ratio test indicates that for IPT, 2 out of 7 items are significant towards DV. Only 1 item is significant for IPT towards DV in Table 4.4.

Table 4.44: IPS and IPT towards PPR
(It is difficult for public to seek recourse from the government agency on assessment-related decision)

	It is difficult for public to seek recourse from the government agency on assessment-related decision (DV)				
Effect of **IPS (IV)**	-2 Log Likelihood of Reduced Model	Sig.	Effect of **IPT (IV)**	-2 Log Likelihood of Reduced Model	Sig.
Intercept	34.743	0.772	Intercept.	109.048	0.687
B2	37.213[a]	0.224	B9	108.591	0.863
B3	37.494[a]	0.195	B10	114.851	0.038
B4	42.733	0.014	B11	108.555	0.879
B5	34.343	0.943	B12	108.419	0.940
B6	34.440	0.898	B13	112.231	0.140
B7	37.671[a]	0.179	B14	112.523	0.121
B8	42.046	0.020			

Based on parameter estimate table in Table 4.45, there is only 1 significant item towards dependent variable.

Table 4.45: Parameter Estimates PPR
(It is difficult for public to seek recourse from the government agency on assessment-related decision)

Parameter Estimates								
It is difficult for public to seek recourse from the government agency on assessment-related decision.[a]		B	Wald	Sig	It is difficult for public to seek recourse from the government agency on assessment-related decision.[a]	B	Wald	Sig
Disagree	Intercept	-38.918	59.158	0.000	**Disagree** Intercept	-1.750	0.556	0.456
B2		-0.322	0.064	0.800	B9	0.271	0.173	0.677
B3		-12.942	0.000	0.982	B10	1.195	1.475	0.225
B4		13.848	0.001	0.981	B11	-0.109	0.015	0.904
B5		-0.508	0.092	0.762	B12	-0.076	0.050	0.823
B6		11.660	.	.	B13	-0.079	0.018	0.894
B7		-0.327	0.050	0.823	B14	-0.780	4.013	0.045
B8		1.758	6.147	0.013				
Neither	Intercept	-28.880	0.000	0.985	**Neither** Intercept	-1.798	0.398	0.528
B2		-1.743	2.287	0.130	B9	-0.167	0.047	0.829
B3		-13.777	0.001	0.981	B10	2.711	4.170	0.041
B4		27.022	0.001	0.972	B11	-0.546	0.239	0.625
B5		-0.129	0.002	0.960	B12	0.044	0.012	0.914
B6		-0.110	.	.	B13	-1.197	3.133	0.077
B7		-2.306	2.843	0.092	B14	-0.577	1.397	0.237
B8		1.532	2.668	0.102				

[a] The reference category is: Agree.

The likelihood ratio test indicates that for IPS, 6 out of 7 items are significant compared to IPT, there are none item is significant towards DV.

Table 4.46: IPS and IPT towards PPR
(Once a decision is made by the agency, it is hard for public to question it)

	Once a decision is made by the agency, it is hard for public to question it (DV)				
Effect of **IPS (IV)**	-2 Log Likelihood of Reduced Model	Sig.	Effect of **IPS (IV)**	-2 Log Likelihood of Reduced Model	Sig.
Intercept	12.716[a]	1.000	Intercept.	113.511	0.543
B2	32.134[a]	0.000	B9	113.835	0.462
B3	26.719[a]	0.001	B10	117.231	0.084
B4	26.107[a]	0.001	B11	113.817	0.466
B5	14.146[a]	0.489	B12	116.930	0.098
B6	12.715[a]	0.000	B13	116.911	0.099
B7	24.131[a]	0.003	B14	112.493	0.903
B8	20.796[a]	0.018			

Based on parameter estimate in Table 4.47, none of item is significant towards DV.

Table 4.47: Parameter Estimates PPR
(Once a decision is made by the agency, it is hard for public to question it)

Parameter Estimates							
Once a decision is made by the agency, it is hard for public to question it..[a]	B	Wald	Sig	Once a decision is made by the agency, it is hard for public to question it..[a]	B	Wald	Sig
Disagree Intercept	-15.790	.000	.994	**Disagree** Intercept	11.035	.000	.995
C2	.036	.000	1.000	B9	141.094	.003	.959
C3	-11.167	.	.	B10	-65.996	.001	.976
C4	-.492	.000	.999	B11	-88.449	.001	.973
C5	0[c]	.	.	B12	-31.743	.003	.954
C6	5.584	.005	.945	B13	22.111	.000	.992
C7	0[c]	.	.	B14	-2.304	2.756	.097
C8	11.167	.001	.972				
Neither Intercept	-6.282	.000	.997	**Neither** Intercept	-33.673	.000	.993
C2	-16.705	.000	.989	B9	-12.935	.002	.964
C3	-10.186	.000	.994	B10	72.115	.	.
C4	12.974	.001	.982	B11	-42.631	.000	.983
C5	0[c]	.	.	B12	-1.930	1.448	.229
C6	5.093	.002	.967	B13	.636	.000	1.000
C7	0[c]	.	.	B14	-13.536	.002	.962
C8	10.186	.000	.983				

[a] The reference category is: Agree.

4.6 Chapter Summary

Logistic regression coefficient analysis is carried out a main test to analysis the experimental results obtained from tax payers' in Kedah. The purpose of this log regression analysis to determine the relationship among sense of control, perceived power relationship, information process satisfaction and information process transparency. As a conclusion, whether sense of control and perceived power relationship leads to greater satisfaction and transparency will be discussed in chapter 5.

CHAPTER 5
CONCLUSION

This study investigates public opinion on the explanation provided in e-Filing, e-Quit Rent and e-Assessment systems. The items being measured are information satisfaction, information transparency, sense of control and perceived power relationship. The data are collected from 100 in which the details of their analysis are discussed in previous chapter. This chapter summarizes the findings presented in Chapter 4 with respect to two specific objectives which have been defined in Chapter 1 and restated again in this chapter for easy and quick reference. The rest of this chapter explains the limitation of this project and suggestions for future work.

5.1 Objectives revisited

The main objective of this project is to evaluate the impact of providing online advisory systems with explanation such as those provided in e-Filing, e-Quit Rent and e-Assessment systems to the public. Two supporting objectives have been defined in Chapter 1, they are:

i) To evaluate whether sense of control (SOC) and perceived power relationship (PPR) leads to greater satisfaction among the public.

ii) To evaluate whether sense of control (SOC) and perceived power relationship (PPR) leads to greater transparency among the public.

5.1.1 Objective1

The first research objective is to evaluate whether the sense of control (SOC) and perceived power relationship (PPR) leads to greater satisfaction among the public. The impact of online explanation provided by e-Filing, e-Quit Rent and e-Assessment are evaluated.

5.1.1.1 E-Filing system

Table 4.18 noted that IPS for item B4 has significant correlated with all SOC items. Therefore the respondents agree that online explanation provided by e-Filing system makes it easier for them to complete tax filing form. The correlation strength between B4 and SOC for the four items is 0.141, 0.058, 0.180 and 0.125 respectively. However, Table 4.20 shows IPS for item B4 has significant correlations with PPR items. Therefore the respondents say that the online explanation provided by e-filing system makes it easier for me to complete tax filing form. The correlation strength between B4 and PPR for three items is 0.088, 0.214 and 0.062. As conclusion, sense of control leadsto greater satisfaction among the public because there are 43% item is significant compared to perceived power relationship only 23% items are significant.

5.1.1.2 E-Quit Rent system

IPS for C7 in Table 4.22 and Table 4.24 has significant correlations with all SOC items; the result for IPT and PPR are also the same. Therefore the respondents would be very likely to recommend a system with similar online explanation to their friend and colleagues. The correlation strength between C7 with SOC and PPR for the four items is 0.000 respectively. However, perceived power relationship lead to greater satisfaction because it has 43% significant value compared to sense of control only 25%.

5.1.1.3 E-Assessment

Table 4.26 shows that IPS for items D4 to D7 has significant correlation with all SOC items. Therefore the respondents agree that online explanation provided by e-Assessment system makes it easier for them, enhances their effectiveness to check and pay their assessment tax, useful for checking their assessment tax and would be very likely to recommend a system equipped with similar online explanation to their friends and colleagues. The correlation strength for that item is 0.000. Table 4.28 illustrated that IPS for item D2 to D8 has some significant correlation with PPR

items. Some of the correlation strength is 0.000, 0.314, 0.515 and 0.664. From both results shows that perceived power relationship lead to greater satisfaction because it has 63% significant item compared to sense of control 60% only.

5.1.2 Objective 2

The second research objective is to evaluate whether the sense of control (SOC) and perceived power relationship (PPR) leads to greater transparency among the public. The result for e-Filing, e-Quit Rent and e-Assessment are discussed below.

5.1.2.1 E-Filing system

Table 4.19 illustrates that IPT for B14 has significant correlations with all SOC items. Hence the respondents agree that the advices given by the online explanation are often too long to be understood. The correlation strength between B14 and SOC for the four items is 0.186, 0.234, 0.054 and 0.145. However in Table 4.21 note that IPT for item B9 to B14 has significant correlations with PPR items. Hence the respondents agree that online explanation makes it easy to understand how the tax rules are applied to their situation, online explanation on how their assessment is done is clear, online explanation on how their assessment is done is easy to understand, the explanation for their assessment is organized so they are easy to follow and advices given by the online explanation are often too long to be understood. As conclusion, sense of control lead to greater transparency because it has 80% significant item compared to perceived power relationship only 53%.

5.1.2.2 E-Quit Rent system

Table 4.23 shows IPT for C9 has significant correlation with SOC (I felt calm when using e-Quit Rent system) and SOC (I felt confused when using e-Quit Rent system). Therefore, the respondents agree the online explanation makes it easy to understand how the quit rent rules are applied to their situation. The correlation strength between C9 and SOC for two items is 0.350 and 0.327. However for IPT with PPR, Table 4.25 illustrated item C9 has significant correlations with PPR (The agency expects

the public to obey its assessment) and PPR (Difficult for public to seek recourse from the government agency on assessment- related decision). Therefore the respondents agree that online explanation makes it easy to understand how the quit rent rules are applied to their situation. The correlation strength between C7 and PPR for the two items is 0.198 and 0.249 respectively. As conclusion, sense of control lead to greater transparency because it has 33% item is significant compared to perceived power relationship only 10%.

5.1.2.3 E-Assessment

Note that for Table 4.27, IPT item for D9, D11, D13 and D14 has significant correlation between SOC item (I felt calm when using e-Assessment system and I felt frustrated when using e-Assessment system). The correlation strength for that item is between 0.323 and 0.739. However, Table 4.29 illustrated that IPT for item D9 to D13 has significant correlation with PPR (The agency expects the public to obey its assessment and difficult for public to seek recourse from the government agency on assessment- related decision.). The correlation strength those item are 0.151, 0.474, 0.530, 0.549, 0,550, 0.623, 0632 and 0.664. As conclusion, sense of control leads to greater transparency because total of significant value is 42% compared to perceived power relationship only 29%.

5.1.3 Structural model

The summarization from the correlation R square result for e-Filing, e-Quit Rent and e-Assessment are illustrated in Figure 4.9, Figure 4.10 and Figure 4.11.

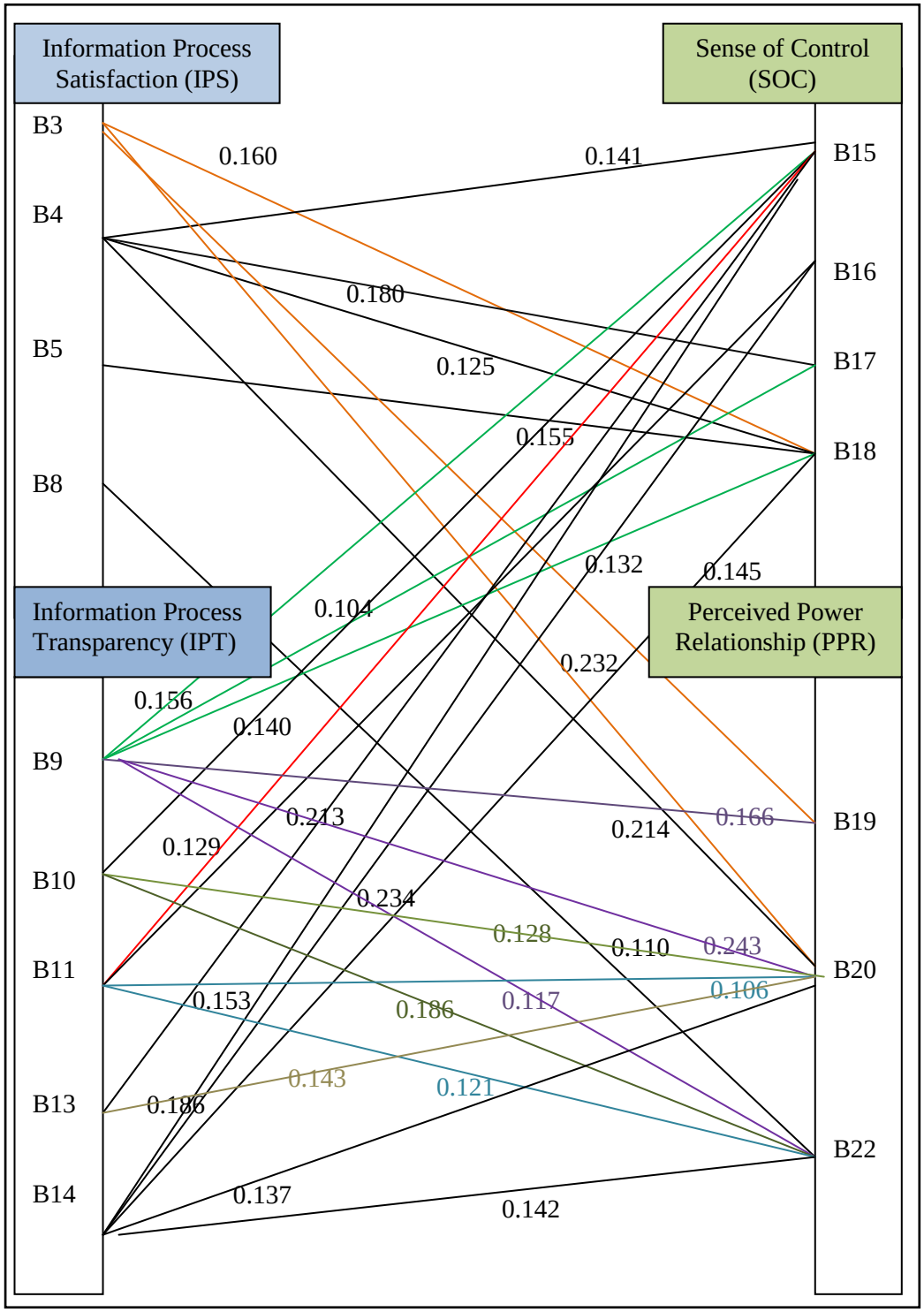

Figure 4.9: Structural model for e-Filing

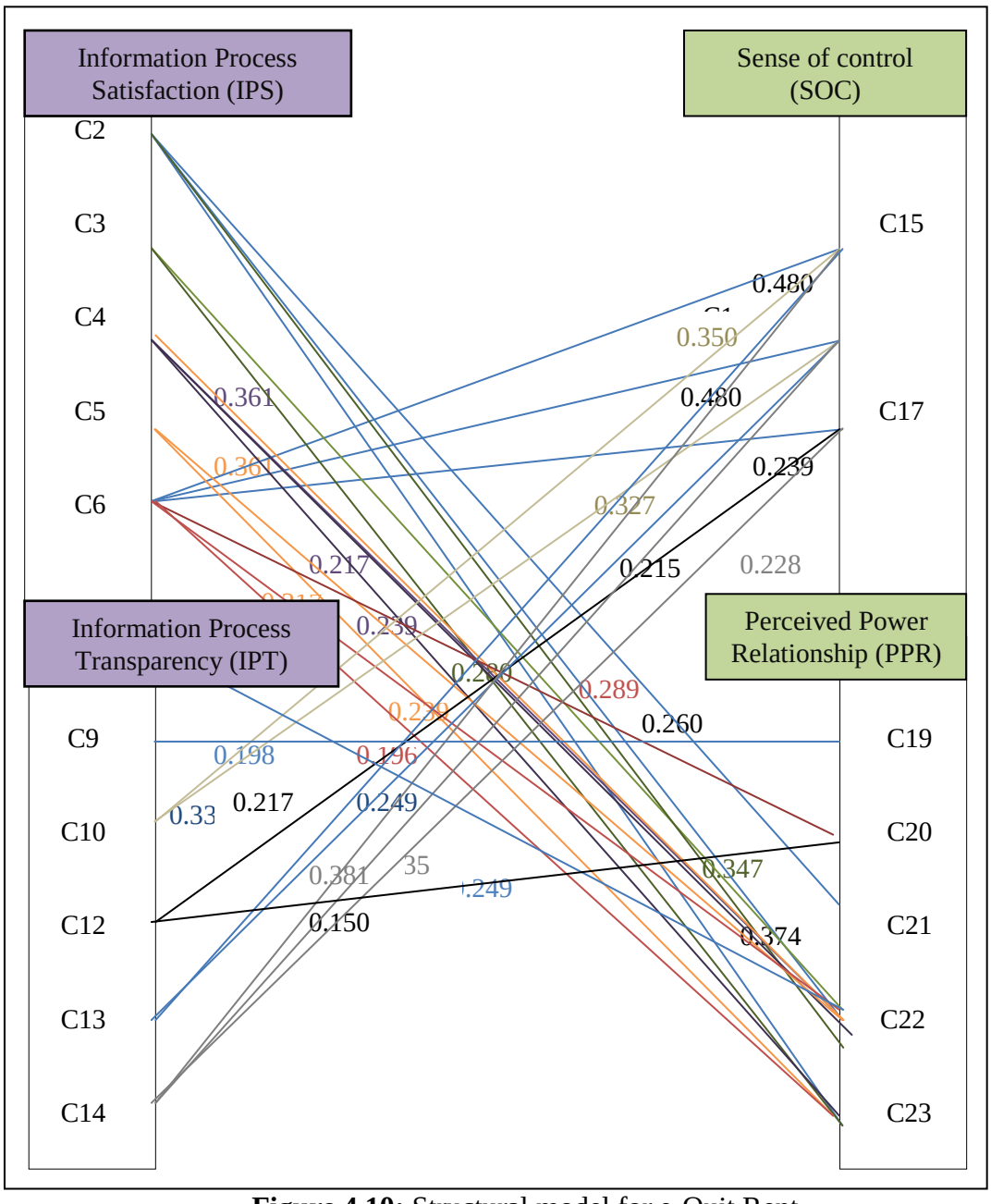

Figure 4.10: Structural model for e-Quit Rent

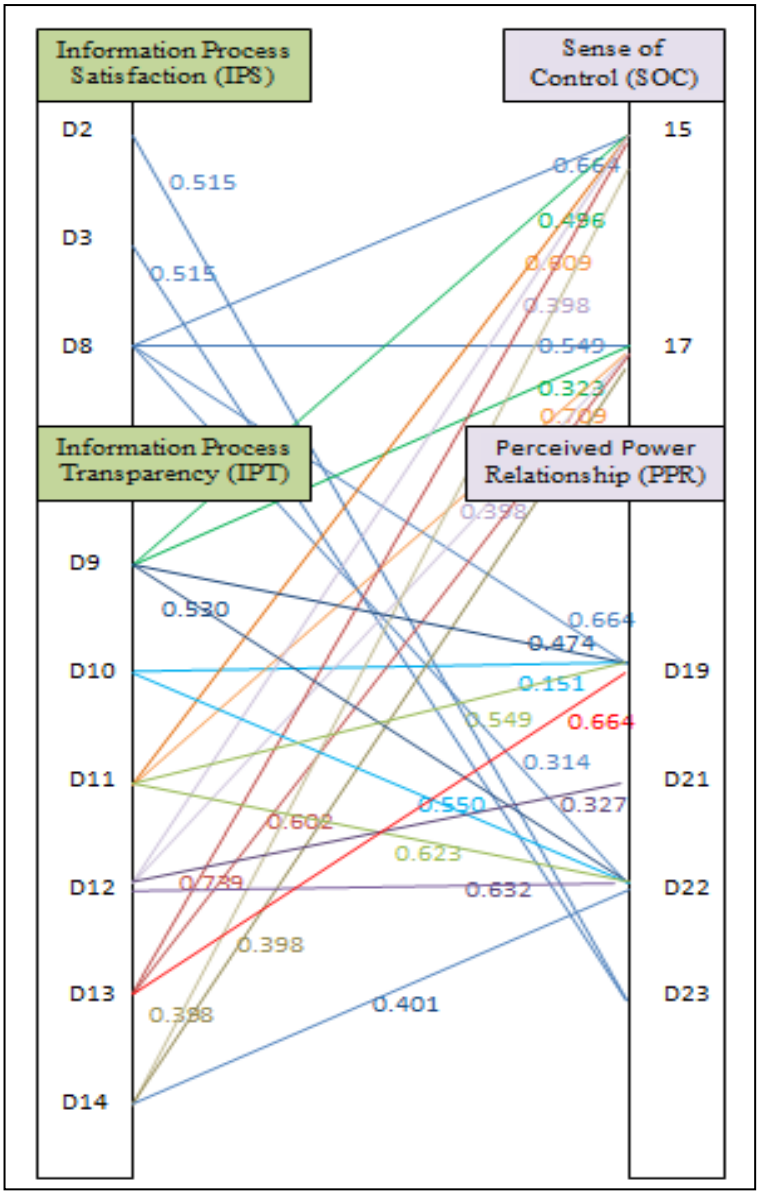

Figure4.11: Structural model for e-Assessment

5.2 Limitation

As the size of the sample is small relative to the total number of tax payers in Malaysia, findings from this study should not be used to represent public opinion of all tax payers; a large scale study is needed for this purpose.

5.3 Suggestion for future work

In future, this research should be conducted in large scale of study so that the result will be more accurate and better represent public opinion of tax system in Malaysia. As Government website is one of the facilities for public to get the information and services from the government, an improved explanation can assist users with the understanding of unfamiliar terms and requests during data input and thus lead to greater accuracy of the input.

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Appendix A

Questionnaire Sample

.

Questionnaire's Form for Evaluation of Explanation Provided by e-Government Portal

UNIVERSITI UTARA MALAYSIA
COLLEGE OF ARTS AND SCIENCES
SCHOOL OF COMPUTING

I am a Master of Science (Information Technology) student at final semester in Universiti Utara Malaysia under the supervision of Mrs. Nur Azzah Abu Bakar and Associate Prof. Fadzilah Siraj. Currently, I am performing this questionnaire to aims to obtain the information on the explanation available on the e-Government web-based applications.All your information will be treated as confidential will be used for academic purposes only. Your feedback in making this study successful is highly appreciated. If you have any queries, please do not hesitate contact me at 016-3350149 or e-mail at asz1506@yahoo.com. Thank you for your valuable time and support in completing this questionnaire.

MSc. IT Candidate
Asiah binti Asmuni

No Siri | | | |

QUESTIONNNAIRE

This questionnaire aims to get your valuable feedback on the evaluation of explanation provided by e-Government portal. Specifically, three e-government applications have been identified, namely :

1. E-Filing (Lembaga Hasil Dalam Negeri)	http://ehasil.gov.my
2. Quit Rent (Pejabat Pengarah Tanah dan Galian Negeri Kedah)	http://www.ptgkedah.gov.my
3. Assessment (Majlis Bandaraya Alor Setar)	http://www.mbas.gov.my
(Majlis Daerah Kubang Pasu)	http://mdkubangpasu.gov.my

INSTRUCTION

Please answer all questions from each section. Please fill up the blanks and mark [√] where appropriate.

Phone : _____

Email : _____

A.GENERAL INFORMATION

A1. Gender : [ ] Male [ ] Female

A2. Age : [ ] 25 – 29 years [ ] 30 – 39 years [ ] 40 – 49 years [ ] above 50 years

A3. Marriage status : [ ] Single [ ] Married [ ] Others

A4. Highest Education : [ ] SPM [ ] Degree [ ] Master / PHD [ ] Others

A5. Job : [ ] Professional (Academic [ ] Professional (Non-academic [ ] Support Staff

A6. Time of using computer per week : [ ] < 14 hours [ ] 14-28 hours [ ] >28 hours

A7. Household income per month : [ ] <RM 3000 [ ] RM 3001 – RM 10000 [ ] >RM 10000

B. E-FILING WEBSITE: HTTP://EHASIL.GOV.MY

(1) Disagree **(2)** Neither **(3)** Agree

Please answer all questions from each section. Please fill up the blanks and mark [√] where appropriate.

B1. E-filing handling experience : [ ] Yes [ ] No

	ITEMS	1	2	3
B2.	The online explanation (help window and explanation note) provided in this e-filing system is one of the best ways to assist me to prepare my tax filing form.			
B3.	The online explanation provided by e-filing system improves my productivity in preparing income tax filing form.			
B4.	The online explanation provided by e-filing system makes it easier for me to complete tax filing form.			
B5.	The online explanation provided by e-filing system enhances my effectiveness in preparing income tax filing form.			
B6.	The online explanation provided by e-filing system is useful in preparing income tax filing form.			
B7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.			
B8.	I am happy with the explanation provided in this e-filing system.			
B9.	The online explanation makes it easy to understand how the tax rules are applied to my situation.			
B10.	The online explanation on how my assessment is done is clear.			
B11.	The online explanation on how my assessment is done is easy to understand.			
B12.	The online explanation contains terms that are confusing me.			
B13.	The explanation for my assessment is organized so they are easy to follow.			
B14.	The advices given by the online explanation are often too long to be understood.			
B15.	I felt calm when using e-filing system.			
B16.	I felt confused when using e-filing system.			
B17.	I felt frustrated when using e-filing system.			
B18.	I felt in control when using e-filing system.			
B19.	In tax assessment, the agency expects the public to obey its assessment.			
B20.	In tax assessment, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes.			
B21.	It is difficult for public to express disagreements with the government on assessment-related decision.			
B22.	It is difficult for public to seek recourse from the government agency on assessment-related decision.			
B23.	Once a decision is made by the agency, it is hard for public to question it.			

B24. I would be very likely to use a system with this kind of online explanation to do other related task in future.

[ ] Yes [ ] No

C. QUIT RENT WEBSITE: HTTP://WWW.PTGKEDAH.GOV.MY

(1) Disagree **(2)** Neither **(3)** Agree

Please answer all questions from each section. Please fill up the blanks and mark [√] where appropriate.

C1. Have you ever use this http://www.ptgkedah.gov.my: [ ] Yes [ ] No

If **[Yes]** Please continue for the next question or **[No]** No need to answer for the next question.

	ITEMS	1	2	3
C2.	The online explanation (manual) provided in this quit rent system is one of the best ways to assist me to pay my quit rent.			
C3.	The online explanation provided by quit rent system improves my productivity to check and pay my quit rent.			
C4.	The online explanation provided by quit rent system makes it easier for me to check and pay my quit rent.			
C5.	The online explanation provided by quit rent system enhances my effectiveness to check and pay my quit rent.			
C6.	The online explanation provided by quit rent system is useful in preparing my quit rent assessment.			
C7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.			
C8.	I am happy with the explanation provided in this quit rent system.			
C9.	The online explanation makes it easy to understand how the quit rent rules are applied to my situation.			
C10.	The online explanation on how my assessment is done is clear.			
C11.	The online explanation on how my assessment is done is easy to understand.			
C12.	The online explanation contains terms that are confusing me.			
C13.	The explanations for my assessment are organized so they are easy to follow.			
C14.	The advices given by the online explanation are often too long to be understood.			
C15.	I felt calm when using quit rent system.			
C16.	I felt confused when using quit rent system.			
C17.	I felt frustrated when using quit rent system.			
C18.	I felt in control when using quit rent system.			
C19.	In quit rent assessment, the agency expects the public to obey its assessment.			
C20.	In quit rent assessment, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes.			
C21.	It is difficult for public to express disagreements with the government on assessment-related decision.			
C22.	It is difficult for public to seek recourse from the agency on assessment –related decision.			
C23.	Once a decision is made by the agency, it is hard for public to question it.			

C24. I would be very likely to use a system with this kind of online explanation to do other related task in future.

[ ] Yes [ ] No

D. ASSESSMENT WEBSITE:
HTTP://WWW.MBAS.GOV.MY , HTTP://WWW.MDKUBANGPASU.GOV.MY

(1) Disagree **(2)** Neither **(3)** Agree

Please answer all questions from each section. Please fill up the blanks and mark [√] where appropriate.

D1.Have you ever use thishttp://www.mbas.gov.myor http://www.mdkubangpasu.gov.my

[ ] Yes [ ] No

If **[Yes]** Please continue for the next question or **[No]** No need to answer for the next question.

	ITEMS	1	2	3
D2.	The online explanation (manual) provided in this system is one of the best ways to assist me to pay my assessment tax.			
D3.	The online explanation provided by this system improves my productivity to check and pay my assessment tax.			
D4.	The online explanation provided by this system makes it easier for me to check and pay my assessment tax.			
D5.	The online explanation provided by this system enhances my effectiveness to check and pay my assessment tax.			
D6.	The online explanation provided by this system is useful for checking my assessment tax.			
D7.	I would be very likely to recommend a system equipped with similar online explanation to my friends and colleagues.			
D8.	I am happy with the explanation provided in this assessment system.			
D9.	The online explanation makes it easy to understand how the assessment rules are applied to my situation.			
D10.	The online explanation on how my assessment is done is clear.			
D11.	The online explanation on how my assessment is done is easy to understand.			
D12.	The online explanation contains terms that are confusing me.			
D13.	The explanations for my assessment are organized so they are easy to follow.			
D14.	The advices given by the online explanation are often too long to be understood.			
D15.	I felt calm when using assessment system.			
D16.	I felt confused when using assessment system.			
D17.	I felt frustrated when using assessment system.			
D18.	I felt in control when using assessment system.			
D19.	In assessment system, the agency expects the public to obey its assessment.			
D20.	In assessment system, the agency strives to assist the public to understand the reasoning processes behind assessment outcomes.			
D21.	It is difficult for public to express disagreements with the government on assessment-related decision.			
D22.	It is difficult for public to seek recourse from the agency on assessment –related decision.			
D23.	Once a decision is made by the agency, it is hard for public to question it.			

D24. I would be very likely to use a system with this kind of online explanation to do other related task in future.

[ ] Yes [ ] No